Entrepreneurial Growth Intention: The Role of Effectual Logic

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by

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List of abbreviations

3 Bs	Bach, BMW and Boat
AMOS	Analysis of a Moment Structures
AVE	Average Variance Extracted
BMI	Business Model Innovation
CEO	Chief Executive Officer
CFA	Confirmatory Factor Analysis
CFI	Comparative fit index
CR	Composite Reliability
CSGC	Creative Solution Generation Capacity
DMP	Dualistic Model of Passion
EFA	Exploratory Factor Analysis
ESE	Entrepreneurial Self-efficacy
FOEs	Foreign-Owned Enterprises
GDP	Gross Domestic Product
GFI	Goodness-of-Fit Index
HP	Harmonious Passion
IBM	International Business Machines
KMO	Kaiser-Meyer-Olkin
MBA	Master of Business Administration
MGA	Multi-Group Analysis
ML	Maximum Likelihood
NNFI	Non-Normed Fit Index
NZ	New Zealand
NZBWW	New Zealand Business Who's Who
OECD	Organisation for Economic Co-operation and Development
OP	Obsessive Passion
PBC	Perceived Behavioral Control
QDA	Qualitative Data Analysis
R&D	Research and Development
RMSEA	Root Mean Square of Approximation
SEM	Structural Equation Modelling
SMEs	Small and Medium-Sized Enterprises
SPSS	Statistical Package for Social Sciences
SRMR	Standardiseded Root Mean Residual
SSI	Survey Sampling International
TEP	Team Entrepreneurial Passion
TLI	Tucker-Lewis index
TMT	Top Management Teams
TPB	Theory of Planned Behaviour
U.S	United States
VIF	Variance Inflation Factor

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Abstract

The significance of entrepreneurial venture growth in entrepreneurship research has attracted scholarly attention for decades. More recently, policymakers have also shown a keen interest, not just in venture creation, but also in growth-oriented entrepreneurship. At a government level, policymakers are unequivocal about their desire to support growth-oriented start-ups as they are often considered crucial to the economy.

Significant resources have, thus, been invested in high growth firms because of their perceived impact on the economy. It, however, appears that these potentials are yet to materialise given the noticeable dearth of high growth firms. While a plethora of literature has been generated to understand high growth firms, the majority of research on entrepreneurial venture growth has, to date, focused mainly on understanding the relationship between venture growth and firm characteristics. Only very little discussion about the phenomenon of growth has been made in relation to the entrepreneur and entrepreneurial decision-making. At the centre of the debate on entrepreneurial decision-making that has focused on venture's growth is the importance of emotion and cognition, as well as the role they play on such decision-making. While growth decisions are loaded with uncertainties, effectuation offers unorthodox principles that eliminate or reduce uncertainties. The pursuit of growth in small and medium-sized enterprises (SMEs) depends on the entrepreneur's decision, and such a decision reflects the interaction of passion and motivation.

This study examines entrepreneurial passion and motivation factors that influence entrepreneurial growth intention, as well as the role of effectual logic in the formation of this entrepreneurial growth intention. Methodologically, quantitative and qualitative data were collected from 528 SMEs in New Zealand and Australia using Qualtrics, a powerful online survey tool. Data analyses were conducted with a view to generating deeper insights into the experiences of these entrepreneurs. Quantitative data generated in this study were analysed based on a structural equation modelling approach using IBM SPSS AMOS 25. Qualitative data generated in this study were analysed thematically using content analysis (NVivo 12 software).

Findings from this study showed the dominance of emotion over cognition in the formation of entrepreneurial decisions. While entrepreneurs acknowledged perceived opportunities that could lead to growth, they also acknowledged the hostile and limiting role of the context (e.g. policies and regulations) in which they operate, hence dwindling motivation to pursue entrepreneurial opportunities that could lead to growth. Ideally, with perceived opportunities, entrepreneurs should decide to pursue growth, but on the contrary, findings from this study indicate that entrepreneurs showed diminishing pursuit of growth. One of the more significant findings that have emerged from this study is that despite the contextual constraint experienced, entrepreneurs are still passionate about developing their firms. Some respondents, however, preferred to be serial entrepreneurs, exalting their founding identity by their willingness to sell off after establishing the firm. Effectual logic was also found to influence the formation of growth intention positively in a context and culture that was less encouraging for entrepreneurial growth.

Chapter One: Introduction

1.1 Introduction

The significance of entrepreneurial venture growth in entrepreneurship research has attracted scholarly attention for decades (Busenitz & Lau, 2001; Davidsson, 1989; Gilbert, McDougall, & Audretsch, 2006; Hamilton, 2007; Kolvereid, 1992; Kozan, Oksoy, & Ozsoy, 2006; Satterthwaite & Hamilton, 2017; Wright & Stigliani, 2013). Entrepreneurship researchers have recently recommended probing into growth-related questions such as "Why some entrepreneurs are more motivated than others to grow their firms?"; "How do entrepreneurs really decide to grow or not to grow their firms?" (Wright & Stigliani, 2013, p. 15). At the government level, policy-makers have made no secret of their desire for growth-oriented start-ups which are often considered crucial to the economy (Cassar, 2004; Douglas, 2013; Satterthwaite & Hamilton, 2017). Of course, more resources are invested in high growth firms because of their perceived impact on the economy (Frederick, 2004b). Consequently, a plethora of literature has been generated to understand the dearth of high growth firms despite its massive "importance for regional job creation and development" (Gilbert et al., 2006).

Nevertheless, research on entrepreneurial venture growth has, to date, focused mainly on understanding the relationship between venture growth and firm characteristics. There has been little discussion about the "phenomenon of growth" in relation to the entrepreneur (Dutta & Thornhill, 2008; Rasmussen et al. 2016). The increasing concern about neglect of the entrepreneur in entrepreneurial venture growth research is because, entrepreneurs make decisions about growth, not entrepreneurial firms (Wright & Stigliani, 2013). This development calls for a shift in focus and emphasis from the entrepreneurial firm level to the entrepreneur level (Scott & Rosa, 1991). This study, therefore, sets out to concentrate on an important part of entrepreneurial venture growth that has the entrepreneur at the centre of growth intention.

Growth intention is "the entrepreneur's explicit intent in terms of the growth trajectory he or she would like their venture to follow over its life-cycle." (Dutta & Thornhill, 2014, p. 184). The best antecedent of entrepreneurial decision is entrepreneurial intention (Fini et al., 2012;

Krueger & Carsrud, 1993; Krueger, Reilly, & Carsrud, 2000; Lee, Wong, Foo, & Leung, 2011; Schlaegel & Koenig, 2014). Unfortunately, entrepreneurial intention has been narrowly defined by some scholars as the intention to start a business not appreciating the broadness of the concept. Entrepreneurial intention encompasses start-up intention (Frank, Lueger, & Korunka, 2007; Hwee Nga & Shamuganathan, 2010; Liñán, Urbano, & Guerrero, 2011) and growth intention (Dutta & Thornhill, 2015; Puente et al., 2017; Zampetakis et al., 2016) as well as exit intention (Collewaert, 2012; DeTienne, 2010; Hsu et al., 2016; Josic et al., 2012).

There is a growing body of literature that validates the relationship between growth intention and actual growth (Kolvereid & Bullvag, 1996; Wiklund & Shepherd, 2003; Delmar & Wiklund, 2008; Kolvereid, 1992). Hence, previous research at growth level as well as at intentional level have studied the drivers of entrepreneurial venture growth mainly under three perspectives: individual, organisational and environmental factors (Dutta & Thornhill, 2008; Gilbert et al., 2006; Hamilton, 2007; Hansen & Hamilton, 2011; Wright & Stigliani, 2013). At the individual level, which is the focus of this study, the entrepreneur is the focus. Entrepreneurship scholars went further to classify these factors into internal and external factors (Frank et al., 2007; Josic et al., 2012).

Internal factors such as motivation, gender, emotion, social cognition, education and experience as well as family background are found to predict both actual growth and growth intention (Baum & Locke, 2004; Baum et al., 2001; Busenitz & Lau, 2001; Hansen & Hamilton, 2011). Equally important is the context in which the entrepreneur operates. Autio & Acs (2010) maintain that "entrepreneurial behaviours cannot be fully understood without giving attention to the context in which those behaviours are observed". Environmental variables like location, industry, market, environmental hostility and institutional environment are strong determinants of growth intention (Puente et al., 2017; Troilo, 2011; Wiklund, Patzelt, & Shepherd, 2009; Wiklund & Shepherd, 2003). "Intentions are assumed to capture the motivational factors that influence a behaviour". Motivational factors have long been adjudged to have a vital influence on behavioural intention; they measure the drivers of these intentions (Ajzen, 1991, p. 181). "Entrepreneurial motivation is an internal drive that provides entrepreneurs with the energy to deal with obstacles and push forward in an effort to satisfy their need for achievement" (Thom, 2015, p. ii). Entrepreneurial motivation has been seen as

a likely explanatory variable that determines entrepreneurial intention and action (Carsrud & Brännback, 2011).

On the other hand, recent developments in entrepreneurship research have heightened the role of emotion in the entrepreneurial process (Doern & Goss, 2013; Doern & Goss, 2014; Holt & Popp, 2013; Jennings et al., 2015; Padilla-Meléndez et al., 2014; Podoynitsyna et al., 2012; Whittle et al., 2012). Emotional states are crucial to the development of entrepreneurial intention (Hayton & Cholakova, 2012). Positive emotion such as passion has been found to strongly predict entrepreneurial intention (Biraglia & Kadile, 2017; De Clercq et al., 2013). Cardon et al. (2009: 517) defined entrepreneurial passion as "consciously accessible, intense positive feelings experienced by engagement in entrepreneurial activities associated with roles that are meaningful and salient to the self-identity of the entrepreneur". Interestingly, entrepreneurial passion for growth or development has been pointed to as the reason why some entrepreneurs grow their firms while others do not (Cardon et al., 2017; Murnieks et al., 2014; Thorgren & Wincent, 2015).

Entrepreneurial decision-making results from the interplay between emotion and cognition (Ma et al., 2017). For a better and deeper insight into why and how the decision for growth is made, an empirical analysis of the impact of cognition in the entrepreneurial process is imperative. Entrepreneurial cognition has been perceived as the likely activator that may trigger a hidden intention into real action and hence, the missing "mechanism for decision making" (Busenitz & Lau, 2001, p. 8). Mitchell et al. (2002, p. 97) defined entrepreneurial cognitions as "the knowledge structures that people use to make assessments, judgments or decisions involving opportunity evaluation and venture creation and growth". Entrepreneurs' knowledge structures were found to influence their preference for growth pattern and growth intention (Dutta & Thornhill, 2008, 2014; Sánchez, 2012). The cognitive process includes reflection on their motivation and emotion as well as the best trajectory for the navigation of their environment (Wright & Stigliani, 2013; Shepherd, 2015; Mitchell et al., 2007).

1.2 Research Problem

Entrepreneurship theory addressing the determinants of entrepreneurial intention has traditionally focused predominantly on start-up intention (Hockerts, 2017; Krueger & Carsrud,

1993; Krueger et al., 2000; Laspita, Breugst, Heblich, & Patzelt, 2012; Lee et al., 2011; Schlaegel & Koenig, 2014; Van Gelderen, Kautonen, & Fink, 2015). Consequently, attention has been paid to entrepreneurial intention at the start-up stage in the entrepreneurial process. More recently, it has been argued that decisions are made at every stage of the entrepreneurial processes, so also are intentions that precede these decisions (DeTienne, 2010). Entrepreneurial decisions such as start-up, growth and exit are crucial to the entrepreneurial process. The past decade has seen the rapid development of research on the entrepreneurial process. While there is significant research on entrepreneurial start-up intention (Hockerts, 2017; Krueger et al., 2000; Laspita et al., 2012), there is a paucity of studies on entrepreneurial growth intention in general, especially on how and why intention to grow or not to grow are formed.

Previous studies on entrepreneurial intention have tended to focus on drivers of such intention while promising factors such as cognition and emotion, which are fundamental to these relationships have been overlooked. Central to the entrepreneurial process is entrepreneurial cognition. Wright & Stigliani (2013: 3) suggested that in order to "understand the processes that underlie entrepreneurial growth. …., we need to know more about how the entrepreneur's cognitive processes shape growth." Understanding how entrepreneurs think will deepen our understanding of how and why entrepreneurial growth intentions are formed. Notably, there is a scarcity of research on entrepreneurial cognitive logics with particular focus on entrepreneurial growth intention.

Effectuation and causation logics present two different sets of cognitive logics that can potentially unravel the complexity of entrepreneurial decision-making under the circumstances of risk and uncertainty at various stages of the entrepreneurial process (Fisher, 2012; Sarasvathy, 2001). So far, there has been no detailed investigation on entrepreneurial growth intention with particular focus on the role of effectual logic. However, research up to now has been conceptual and exploratory in nature (Dutta & Thornhill, 2014). Investigations into entrepreneurial growth intention are highly imperative, as apparently entrepreneurial intentions are the best antecedents of entrepreneurial decisions. Therefore, it is important to understand how and why entrepreneurs form growth intention. To address this oversight, this study designs and presents a new model that builds on previous models in order to take a comprehensive reality of "the person-in-situation **and** cognition and motivation" and emotion model to conceptualise entrepreneurial growth intention (Mitchell et al., 2007, p. 5).

While there are various efforts to understand entrepreneurial growth intention or actual growth (Autio & Acs, 2010; Busenitz & Lau, 2001; Doern, 2011; Dutta & Thornhill, 2008, 2014, 2015; Edelman et al., 2010; Knockaert et al., 2015; Kolvereid, 1992; Kolvereid & Bullvag, 1996; Kozan et al., 2006; Puente et al., 2017; Rasmussen et al., 2016; Stenholm, 2011; Wiklund & Shepherd, 2003), existing research have three basic shortcomings, and they are examined in this study.

- First, most existing research has focused mainly on understanding the relationship between growth intention or actual growth and firm characteristics (e.g., firm's performance, profitability, size and sales) overlooking the entrepreneur who makes the decision of whether to grow or not to grow the firm. Therefore, it is difficult to get a complete view of entrepreneurial intention without an in-depth study of the entrepreneur at the centre of the entrepreneurial process.

- Second, there is a lack of a comprehensive model that examines both the drivers of entrepreneurial growth intention and the role of entrepreneurial cognitive logics. Most of them are predominantly on the determinants or drivers of growth intention and do not evaluate the mechanism that underlies the hypothesised relationships.

- Lastly, there is a lack of understanding of the influence of emotion in the development of entrepreneurial growth intention. Surprisingly, most of the behavioural models have neglected the impact of emotion, assuming that human behaviours are bounded solely by rationality. Simon (1967: 29) suggests studies investigate motivation and emotion in human behaviour. "Since in actual human behaviour motive and emotion are major influences on the course of cognitive behaviour, a general theory of thinking and problem solving must incorporate such influences". This study has immense potential to clearly offer considerable insights into the formation of entrepreneurial growth intention and the role of entrepreneurial cognitive logics in a particular context.

1.3 Relevance of Research

Entrepreneurial decision-making has been propagated to be bounded solely by rationality. Although entrepreneurial cognition plays an essential role in the entrepreneurial process (Mitchell et al., 2007), emotion affects entrepreneurs' cognition in many ways, hence, vital elements of the entrepreneurial process (Baron, 2008). As scholars strive to understand decision-making at each stage of the entrepreneurial process, it is imperative to examine the interplay of emotion and cognition in this process. As Simon (1967: 29) observes: "Since in actual human behaviour motive and emotion are major influences on the course of cognitive behaviour, a general theory of thinking and problem solving must incorporate such influences". Furthermore, the entrepreneurial process is loaded with uncertainties and entrepreneurs make decisions under these conditions, and the role of effectuation, which offers unorthodox principles that eliminate or reduce uncertainties is vividly missing. This study addresses these by examining the impacts of entrepreneurial passion and motivation on the formation of growth intention as well as the role play by effectual logic in these relationships.

The research topic of this study is highly relevant for both practice and academia as it helps in the understanding of entrepreneurial decision and action especially entrepreneurial growth intention in greater depth. Most of Australia and New Zealand's small businesses have been found to lack ambition or motivation to grow (Hamilton & Dana, 2003; Lewis, 2008; Ministry of Business Innovation and Employment, 2013; Business Forte Zealand New, 2012; Barapatre, 2014). This has partly been attributed to the popular concept New Zealanders talk about: the "three Bs syndrome" – bach (house by the beach), BMW and boat. "New Zealand businessmen who achieve the "three Bs" appear to lack the motivation to grow their company further, whether by expanding offshore, listing their company or seeking foreign investment" (OECD, 2007, p. 92).

Despite ranking very high in entrepreneurial activities indicators with an entrepreneurial ecosystem adjudged to be among the best in the world, majority of Australia and New Zealand's businesses are tending towards "lifestyle" ventures (Frederick, 2005a; Ministry of Business Innovation and Employment, 2013; Steffens & Omarova, 2019). About 97% of all registered enterprises in Australia and New Zealand have fewer than 20 employees, highlighting the dominance of SMEs in these countries. However, in Australia, they contribute

only 34% of employment and 44% of the GDP. While in New Zealand, they contribute 29% of employment and 26% of the GDP (Ministry of Business Innovation and Employment, 2017; Australian Small Business and Family Enterprise Ombudsman, 2019). This poses a very significant challenge to these economies because high growth businesses have been on the decline as reported in a series of studies conducted over the years (Ministry of Business Innovation and Employment, 2013).

Indeed, there is no universal agreement on the causes of growth, except the fact that "intention to grow" is a pre-requisite condition (Ministry of Business Innovation and Employment, 2013, p. 1). One way of understanding this is through exploring and examining entrepreneurs' growth intention. Understanding entrepreneurs' attitude to growth is imperative for influencing start-up and existing ventures' desire to be growth-oriented firms. To achieve this, there must be a proper understanding of the entrepreneurial process as well as the formation and development of entrepreneurial growth intention. These must be deeply understood with the mechanisms that explain the formation of intention and decision of entrepreneurial action. Understanding these mechanisms enable appropriate intervention from policy-makers and academia. Furthermore, this study contributes theoretically to the literature on entrepreneurial motivation, entrepreneurial passion, growth intention and entrepreneurial cognitive logic.

Finally, this study has shown that entrepreneurial passion is a powerful driver of growth intention, especially in a dynamic environment where motivational factors such as entrepreneurial opportunities and self-efficacy fail. Also, uncertainties that could hinder entrepreneurs' growth intention can be overcome with the application of effectuation principles.

1.4 Research Aim and Questions

The aim of this study is to examine factors that influence entrepreneurial growth intention and to understand better the role of effectual logic in the formation of entrepreneurial growth intention. Interestingly, Grégoire & Cherchem (2019) noted that the mobilisation of an effectual mode of action seems to have a positive impact on new venture performance and growth. Therefore, Grégoire & Cherchem (2019:8) suggested that "the consideration of .....

mediating relationships integrating effectuation alongside other variables—offer interesting advances about effectuation's benefits". The goal of this thesis is, therefore, to identify predictors of entrepreneurial growth intention and the role of effectual logic in the formation of this growth intention.

Addressing the three main problems identified from literature earlier leads to the following main research question in this study:
How are the effects of entrepreneurial passion and motivation on growth intention of SMEs influenced by effectuation?
This question can be translated into several sub-questions, such as:

Q1: What are the factors that motivate entrepreneurs to grow their business?
Q2: What are the factors that drive entrepreneurs' passion for growth?
Q3: What effects do entrepreneurial passion and motivation have on the growth intention?
Q4: What effects do entrepreneurial passion and motivation have on effectuation?
Q5: What effect does effectuation has on growth intention?

1.5 Overview of thesis chapters

This section outlines the thesis content—this thesis comprised of eight chapters, which are described in the following section.
Chapter One – *Introduction,* provides an overview of entrepreneurial growth and introduces the research study addressing the research gaps. In addition, it presents the problem statement, research questions, and the significance of the study.
Chapter Two – *Literature Review,* examines previous research on the relevant topics by bringing together literature on different constructs used in the study. Accordingly, review of literature on entrepreneurial growth, passion, opportunities and effectuation as well as entrepreneurial self-efficacy was conducted.
Chapter Three –*Research Model and Hypotheses*, describes the theoretical underpinning of the study and presents the developed conceptual model with the hypothesised relationships addressing the gaps in existing research.
Chapter Four – *Research Methodology and Method* covers the philosophical assumptions relevant to the study. This chapter also details the quantitative and qualitative research

approaches used. It describes the population and the sample, unit of analysis, measurement of constructs, research instrument as well as study piloting.

Chapter Five – *Research Application: Quantitative Analysis,* presents results from the quantitative data analysis with particular focus on the dimensionality and validity assessment of constructs using factor analysis, measurement model development and testing of hypotheses using structural equation modelling (SEM) technique.

Chapter Six – *Research Application: Qualitative Data Analysis,* discusses the procedures for analysing the qualitative data such as the examination of trustworthiness, coding and categorisation. Again, the chapter presents the content analysis by showing the themes developed from the qualitative data collected with extensive quotes from the respondents.

Chapter Seven – *Discussion,* brings together key findings from the quantitative and qualitative data analysis and discusses these results in relation to the objectives of the study as well as in the context of existing literature.

Chapter Eight – *Implications, Contributions and Limitations,* concludes the study with methodologically, empirically and theoretically contributions. Finally discusses the managerial, academic and policy implications and also acknowledges the limitations of the study.

Chapter Two: Review of Literature

2.1 Chapter outline

The review begins with introducing the concepts of entrepreneurial growth intention and defining growth as well as explaining the mode of growth and the connection between growth intention and actual growth. Then, this chapter discusses the determinants of small business growth as well as growth and SMEs' internationalisation. The second section explores the concept of entrepreneurial cognition reviewing the literature on motivation, opportunity, need for achievement and entrepreneurial self-efficacy. The third section discusses emotion in entrepreneurship with emphases on identity, the dualistic model of passion and entrepreneurial passion. The last part of the review focuses on entrepreneurial decision-making with discussion centred on effectual logic and venture performance. Attentions were also given to progress made about the measurement of effectuation. The chapter concludes with summaries of the key ideas presented in the literature review and the research gaps identified within the various sections of the literature review.

2.2 Entrepreneurial Growth Intention

Entrepreneurial intention beyond start-up is gaining momentum in entrepreneurship research, and growth intention is leading the push. While there are many drivers of entrepreneurial growth, scholars seem to be unanimous that growth intention precedes actual growth (Delmar & Wiklund, 2008; Doern, 2011; Knockaert et al., 2015; Puente et al., 2017; Rasmussen et al., 2016). Entrepreneurs' growth intention has been found to evolve as entrepreneurs interact with the environment, which presents opportunities and constraints. Intention to continue growing ventures in such an environment are motivated by perceived opportunities, achievement needs and perceived ability to navigate such environment (Davidsson, 1989, 1991).

The relationship between motivation and intention has been established in management literature (Galletta et al., 2011; Huang & Hsu, 2009) and entrepreneurial motivation is believed to drive entrepreneurial intention and decision. The motivation for start-up usually determines

the venture types, and that commonly influence the growth intention of entrepreneurial firms (Edelman et al., 2010; Hessels et al., 2008; Jayawarna et al., 2013; Morris et al., 2016; Naffziger et al., 1994). Internationalising entrepreneurial firms with their export propensity are also found to have growth intention (Moen et al., 2016; Orser et al., 2010). For example, Spence et al. (2011) noted that owners of firms that internationalise early expressed their intention to pursue growth, and this was notably lacking in their counterparts owning domestic new ventures.

Equally seen as important is entrepreneurial passion. Some scholars in the field believe that motivation has more to do with start-up while passion has been attributed to strength to continue the entrepreneurial process despite challenges along the way; therefore entrepreneurial passion and persistence are strongly linked (Cardon & Kirk, 2015). Entrepreneurial passion has been anchored on the entrepreneur's self-identity (Baker et al., 2017; Cardon et al., 2017; Morris et al., 2016; Obschonka et al., 2015). The role salient to the self-identity of the entrepreneur such as inventing, founding and developing have been used to describe the passion of entrepreneurs (Cardon et al., 2013; Cardon et al., 2009). Generally speaking, these identities have been linked with intention (Biraglia & Kadile, 2017; Dalborg & Wincent, 2015; De Clercq et al., 2013) while identity such as passion for developing is positively related to growth-oriented entrepreneurs (Cardon et al., 2017, 2013; Ma et al., 2017; Mueller et al., 2017).

The importance of cognition in the evolution of growth intention has also attracted attention. Entrepreneurial cognition observes the complex interaction between the entrepreneur and the environment (Armstrong et al., 2012; Baldacchino et al., 2015; Mitchell, Busenitz, et al., 2002; Mitchell et al., 2007). Entrepreneurs' decision and intention for growth-oriented ventures have been linked to their cognitive styles and logics (Dutta & Thornhill, 2008; Wright & Stigliani, 2013).

Entrepreneurs with non-linear and effectual logic are found to be desirous of growth while those with linear and causal logic are conservative about growth (Dutta & Thornhill, 2014). Conversely, Laskovaia et al., (2017) reported that the effect of causation on new venture performance is stronger than the effect of effectuation. However, a note of caution is due here since the study by Dutta & Thornhill (2014) is exploratory in nature. Another source of

uncertainty could be differences in the indices of venture performance as even studies on growth differ in their definition of growth.

2.2.1 Defining Growth

Entrepreneurship scholars have discussed venture growth for decades with limited progress. Leitch et al. (2013) point out that for almost 50 years, researchers have shown unprecedented interest in this entrepreneurial phenomenon. However, the journey has been stagnated by the complexity and confusion surrounding it. The inconsistencies in the way growth have been measured (Weinzimmer et al., 1998) in extant literature alluded to the fact that it has a different meaning to stakeholders. Gibb (2000) noted that the four main stakeholders (policymakers, business owners, academics, and others, e.g., customers, funders, and suppliers) attached a different meaning to this phenomenon. To some, it means more jobs created while another sees it as more revenue generated. This is also evident in academic research as different scholar used different measures (See Table 2.1).

Table 2.1: Summary of Studies Measuring Business Growth

Author(s)	Sample size	Time-frame	Measure	Location	Key findings
Arregle et al. (2015)	637	4 years	Revenue	China France Russia United States	Family ties have both positive and negative effects on new venture growth depending on the level and types of the social network.
Barbera & Hasso (2013)	2,004	1994-1995 1997-1998	Sales	Australia	External accountants affect sales growth and survival positively.
Bartz & Winkler (2016)	29,374	2003-2012	Sales	Germany	Small firms have a relative growth advantage over larger firms in both in difficult and stable times.
Baù et al. (2019)	15,658	2004-2013	Sales	Sweden	Local embeddedness benefits family firms more than non-family firms, and as such, they grow more, especially in rural areas.
Baum & Locke (2004)	335	1993-1999	Sales Employment	United States	Goals, self-efficacy, and communicated vision directly impact venture growth.
Baum, Locke, & Smith (2001)	307	1993-1995	Sales Employment Profit	United States	Specific competencies and motivations, as well as firm competitive strategies, directly affect venture growth.
Bradley, Wiklund, & Shepherd (2011)	1116	(Six years)	Sales	Sweden	Slack affects growth directly.

Chandler, McKelvie, & Davidsson (2009)	1357	1995-2004	Employment Sales	Sweden	Sales growth may likely lead to venture growth when human assets are highly specific and less likely when the costs associated with behavioural uncertainty costs are high.
Daily & Thompson (1994)	122	1986-1989	Sales revenues	North America	Ownership structure or strategic posture has direct effects on firm growth.
Davidsson (1991)	322	1984-1986	Employment	Sweden	Ability, Need, and Opportunity affects actual growth.
Delmar & Wiklund (2008)	1030	1994-1999	Sales Employment	Sweden	Growth motivation affects actual growth
Gagliardi (2009)	6,452	1995-2003	Sales	Italy	Local banking development affects firms' growth.
Heshmati (2001)	11481	1993-1998	Employment Assets Sales	Sweden	Smaller firms create more jobs.
Markman & Gartner, (2002)	1,500	1997-1999	Sales Employment	United States	High growth in terms of sales and number of employees is not directly related to firm profitability.
Moreno & Casillas (2008)	434	1998–2001	Sales	Spain	Firm growth is directly influenced by the use of strategies of expansion through new products and markets.

Naldi & Davidsson (2014)	138	2000-2006	Sales	Sweden	The relationship between international knowledge acquisition and entrepreneurial growth is strengthened negatively by firm age.
Nason et al. (2019)	184	2005-2006	Sales Employment Profitability	Sweden	The tension between access and control of R&D resources affects sales growth.
Nuscheler, Engelen, & Zahra (2019)	374	2005-2014	Employment	United States	New product introductions may help technology-based new ventures grow depending on the top management teams (TMT) experience and diverse.
Roper (1999)	210	1993-1994	Sales Assets	Ireland	Return on assets and firms' turnover growth is only weakly related in the short-term.
Wennberg, Delmar, & Mckelvie (2016)	14,760	1995-2002	Employment	Sweden	Entrepreneurs seek growth when their performance is below their aspiration.
Wiklund, Davidsson, & Delmar (2003)	552	1996-1999	Sales Employment	Sweden	Growth aspirations are positively related to actual growth.
Yang & Tsou (2019)	336,768	2001-2007	Employment	China	Small firms, both foreign-owned enterprises FOEs and domestic firms grow at a faster rate than large firms.

Policymakers interest in employment creation, mean they favour the number of employees as a measure of growth, while business owners with a desire for profitability prefer sales-related indicators. Entrepreneurship literature has been dominated by these two measures. For example, Weinzimmer et al. (1998), analysed 193 firms in 48 industries using comparative regression analysis and found that the significance of relationships between growth and the explanatory variables, as well as the amount of explained variance, is subject to the particular concept of growth utilised. Furthermore, they noted that sales growth (42.8%) was better explained with a set of commonly used explanatory variables from literature than were either employee growth (29.2%) or asset growth (28.3%) using various formulas. Interestingly, this view was supported by others accepting that "for most purposes, sales is the more relevant growth indicator" (Davidsson et al., 2009, p.395). Some scholars advocated for an inclusive measure (Delmar et al., 2003; Havnes & Senneseth, 2001; O'Gorman, 2001), stressing that using integrated measures will provide a comprehensive examination of any empirical relationships and allow testing for the robustness of any theoretical model (Dobbs & Hamilton, 2007). However, McKelvie & Wiklund (2010) maintain that the advancement of knowledge stalled in venture growth research due to the focus on "how much" rather than on the "how".

2.2.2 Mode of Growth

For the advancement of knowledge in venture growth research, there is a need for a shift in focus from growth rate to growth mode. Recently scholars have suggested that more attention should be given to "how" growth occurs before answering the "how much" question (McKelvie & Wiklund, 2010; Wright & Stigliani, 2013). In a review of 82 empirical studies from eleven top management journals ranging from 1992 to 2006 by Shepherd & Wiklund (2009), several attempts were made by scholars to explain differences in growth but totally ignoring the process or path of growth. As a result, the literature on venture growth has been highly fragmented making it difficult to compare studies (Shepherd & Wiklund, 2009) which according to Davidsson & Wiklund (2008) has hindered theoretical advancement. In order to unravel the complexity surrounding firm growth as an entrepreneurship phenomenon as well as "keep up with changes in how contemporary firms choose to grow", it is expedient that there is practical clarification of growth mode (Nason & Wiklund, 2018, p. 54). In the same vein, Gilbert et al. (2006) in their extensive review of literature on new venture growth note that without a proper understanding of growth mode, it will be difficult to explain growth outcomes

and how their underlying mechanisms (either internal or external) produce different impact. This view is supported by McKelvie and Wiklund (2010) who write that prioritising research on modes of growth is imperative for a better understanding of the causal mechanisms that explain growth. Entrepreneurship scholars have classified the process by which growth can occur into three modes: organic, acquisitive, or hybrid (Koryak et al., 2015; Lockett et al., 2011; McKelvie & Wiklund, 2010).

Organic growth also referred to as internal growth mode relied on product development and internal research and development (Chen, Zou, & Wang, 2009) and firms that focus on organic growth invest in R&D for possible new product opportunities in order to enhance their product portfolio (Zahra, 1996). Consequently, firm's innovation ability is enriched, leading to strong technological capability with frequent product upgrades, patents as well as valuable technology sources which spur organic growth (Zahra et al., 2006). Organic growth brings about genuine job creation, but employment growth in an acquisition is usually a form of movement of jobs from one firm to another (Chen et al., 2009; Pasanen, 2007).

Growth through acquisitions is a growth mode whereby a business acquires an existing firm or business in the same or other business areas. (Park & Jang, 2011). This strategy provides the fastest trajectory for strategy implementation and growth such as market expansion, however, firms that follow this path are often faced with the challenge of integration which is absent in organic growth (Agnihotri, 2014). Although growth through acquisition does not provide any net increase to the economy but afford firms opportunities to reach and explore new markets without developing (Davidsson et al., 2010; Gilbert et al., 2006). This is worth noting because a study of a dataset comprising a 10-year panel (1987–96) of more than eleven thousand commercially active Swedish enterprises in the private (non-government) sector with 20 or more employees by Lockett et al. (2011) discovered something interesting. They found that firms that have grown organically in the past may find it difficult to experience another organic growth, whereas past acquisitive growth is found to lead firms into future organic growth. Therefore, a combination of growth strategies (hybrid) becomes necessary to overcome "traditional limits to firm growth" resulting from environmental dynamism of business landscape (Dagnino et al., 2017, p. 427).

2.2.3 Entrepreneurial Growth Intention and Actual Growth

Gibb & Davies (1990: 22) claimed that "there is no hard evidence that firm personal growth objectives are themselves predictive of subsequent growth". However, recent studies have found otherwise (Delmar & Wiklund, 2008; Kolvereid & Bullvag, 1996; Wiklund & Shepherd, 2003). In a longitudinal study of Swedish entrepreneurs, Delmar & Wiklund (2008) found small business owners' growth motivation have a positive impact on subsequent venture growth regarding employment growth, but in term of sales growth, the evidence is limited. Establishing this kind of relationship requires longitudinal data: collecting data at the intentional stage and after that as well. In another study conducted in Finland (Stenholm, 2011), longitudinal data from 232 small and medium-sized businesses were examined. The results show the existence of a positive relationship between growth intention and firm growth, and this relationship is weakened by innovative behaviour.

Previous studies that confirmed this relationship have also shown that relationship between growth intention and realised growth is mediated or moderated by other factors such as resources and opportunities (Delmar & Wiklund, 2008; Saemundsson, 2003; Wiklund & Shepherd, 2003). The evidence reviewed here seems to suggest a pertinent role for growth intention as a predictor of growth. With the perceived benefits to the economy, venture growth research has enjoyed attention for decades (Buss, 2002; Mason & Brown, 2013). Douglas (2013) suggests that entrepreneurial intention should be extended beyond start-up intention in order to identify firms with growth tendency. Integrating heterogeneous opportunities and 'individual-opportunity nexus' in the entrepreneurial intentions model, Douglas found that entrepreneurs at the intentional stage show different growth intention, which eventually impacts their choice between independence – and growth-oriented new ventures.

2.2.4 Barriers to SMEs Growth

Small and medium enterprises are seen as a catalyst that spurs economic growth. Their growth means more jobs and revenue for the economy, however, their pursuit of growth is not without challenges. A considerable amount of literature has been published on barriers to SMEs growth. These studies have been conducted in developed and developing economies as well as transition economies. The findings show that some of these barriers are peculiar to economic

status. In a survey of 219 SMEs in Western Canada, Gill & Biger (2012) found that a number of issues could hinder SMEs growth. Some of the issues identified are market challenges, lack of financing and regulatory issues. This view is supported by Lee (2014), who investigated obstacles to high-growth firms' performance in the United Kingdom using quantitative data from 4,858 SMEs. The results suggest that firms in periods of high growth are faced with challenges such as cash flow, securing finance, shortages of skilled labour and finding suitable premises but are less likely to see regulation as a major challenge. In addition, Romero-Jordán et al. (2019) studied the impact of corporation tax on productivity growth in Spain and found that SMEs growth in the area of productivities is hampered by corporation tax more than the bigger firms. In New Zealand, Hansen & Hamilton (2011) identified "controlled ambition of the owner-manager to grow" as a major obstacle to growth. While documenting the evolution of small business policy in Australia and New Zealand in the last 46 years, Mazzarol & Clark (2016) claimed that access to financing and credit is a pertinent issue. Exploring investor readiness in Australia, Douglas & Shepherd (2002) suggest that the venture capital industry in Australia is less mature compared to the US. Therefore, there are few dollars available to support entrepreneurial ideas in Australia (Jones, 2008).

In another set of studies carried out in former centrally planned economies that have transited or are transiting to the market economy, researchers found that entrepreneurs in this type of environment are faced with something unique. For example, Hashi (2001) surveyed SMEs in Albania and reported that the primary barriers to SMEs growth are those caused directly or indirectly by the state. The study noted that entrepreneurs are hindered by financial constraints resulting from fiscal policy, mainly high rate of taxes and contributions coupled with the poor institutional environment.

Similarly, Krasniqi (2007: 71) studied 178 SMEs in Kosovo and concluded that "legal environment, administrative burden, external financing, tax burden and unfair competition" hinder the growth of SMEs. Additionally, other factors associated with the institutional environment, such as external financial constraints as a result of the high cost of capital and bureaucracy, were also identified (Bartlett & Bukvič, 2001). Attempting to sort out the most significant obstacles facing SMEs in developing countries, Wang (2016) analysed data from 119 developing nations and noted that access to finance is perceived as the most significant obstacle by owner-managers. Although there are other issues such as political instability, lack

of electricity and corruption, barriers to external financing (because of the high costs of borrowing) ranked the highest.

Almost every study conducted in different developing countries on this topic supported these findings. For instance, across India, researchers discovered that small business growth is hindered by a variety of challenges which include the shortage of working capital, power shortage, market challenges, regulatory issues and management problems (Coad & Tamvada, 2012; Gill & Mand, 2013). Robson & Obeng (2008) surveyed 500 entrepreneurs from all six regions in Ghana and reported the three greatest problems highlighted by these entrepreneurs comprising of the high rate of inflation, high-interest rate and currency depreciation. Another study from South Africa noted that "difficulty in securing loans, lack of training opportunities, and shortage of entrepreneurial skills" adversely influenced small, micro and medium-sized business enterprises (Worku, 2016, p. 134). Although some of these factors are unique (depending on the circumstances surrounding the economies), collectively, evidence reviewed here outline a critical role of finance in entrepreneurial growth as financial issues resonated across all economic status. Similarly, Beck & Demirguc-Kunt (2006: 2942) in their review of literature on access to funding by small and medium-size enterprises concluded: "that access to finance is an important growth constraint for SMEs".

Acknowledging the role of resource constraint in the entrepreneurial process, scholars in the field of entrepreneurship have paid close attention to effectuation logic for over a decade which emphasised available resources as a "source of entrepreneurial opportunity" and "resource constraints as a source of creativity" (Fisher, 2012, p. 1039). Effectuation has promoted the means (what I am, what I know and whom I know) of the entrepreneur as a way of dealing with constraint posed by lack of resource. Moreover, as entrepreneurs strive to deal with the challenges of growth, effectual principles offer them a lifeline in a dynamic environment. This study aims to examine factors that influence entrepreneurial growth intention and how effectuation could illuminate reason(s) why these factors impact growth intention.

2.2.5 Growth and SMEs' Internationalisation

Growth through internationalisation has been identified as another alternative through which SMEs overcome barriers to growth (Hsu et al., 2013; Omer et al., 2015; Veronica et al., 2019)Internationalisationon is seen as the expansion of target market from domestic to international markets by new ventures, and this is considered a vital performance driver that can increase firm feasibility (Zahra et al., 2000). SMEs are often faced with stiff challenges which limit their ability to grow domestically (Hessels & Parker, 2013).

Scholars have examined the internationalisation process of SMEs, and this is not without challenges. Contractor et al. (2007) acknowledge the impact of internationally expanding companies on the financial performance of firms as the process produces high costs and uncertainties. However, a quantitative study conducted by Pinho & Prange (2016) in Portugal with 107 SME exporters, found that social network relationships of firms will positively affect their international performance. They further noted that obstacles in the internationalisation process could be minimised with the help of dynamic internationalisation capabilities through exploitative and explorative dynamic capabilities. This concept of network relationships has attracted scholarly attention because it is fundamental to internationalisation strategies (Kampouri et al., 2017). It has been noted that networks play a crucial role in SMEs' effort to reduce information asymmetry with the provision of access to information that is relevant to their international survival and growth (Manolova et al., 2009; Zhou et al., 2007). In most cases, firms' decision to establish network relationship is a thoughtful strategic choice which is based on the resources they lack and the assets or resources that another actor in the network can offer (Hessels & Parker, 2013). In particular, networks are necessary for small and medium-sized firms (SMEs) in the foreign market because of the challenges posed by lack of knowledge and resource constraints needed for internationalisation (Gilmore et al., 2006; Lin & Lin, 2016).

For optimal export performance, Brouthers et al. (2009) insisted that small firms from small countries should concentrate on a few overseas markets. Conversely, Casey & Hamilton (2014: 254) examined a sample of 249 small New Zealand exporters reported that exporters should not just focus on one or a few foreign markets, however, they acknowledged that to be successful these small firms will spend more on R&D and embrace "multi-market exporting

through company-owned channels in distant markets". Interestingly, Galkina & Chetty (2015) discovered that by utilising effectual logic entrepreneurs network with interested parties rather than making careful selection from numerous international partners and they do this by entering markets wherever an opportunity occurs establishing commitment with network relations that can increase their means. The network approach to SMEs' internationalisation is gaining recognition and helping international new venture to overcome and navigate foreign markets with the associated challenges. Considering the size and the distance of Australia and New Zealand to the rest of the developed world, taking the growth path of internationalisation leaves SMEs with daunting obstacles could be managed through effectual principles.

There are three significant modes of entry into an international market, e.g. "foreign technology licensing, imports of intermediate production inputs and exporting"(Abubakar et al., 2019, p. 60). From empirical evidence, SMEs prefer an incremental approach such as exporting, presenting them the advantage of learning effects (Dominguez & Mayrhofer, 2017). "In the process of exporting, SMEs gain exposure to various foreign markets and gradually build networks with local clients" (Lu & Beamish, 2006, p.31). Exploiting foreign market via exporting activities allow firms to launch out from the existing domestic base choosing rather to locate production plants and/or sales and marketing offices in other countries to boost their market development strategy (Abubakar et al., 2019).

Researchers have also linked exporting with innovation (Filippetti, Frenz, & Ietto-Gillies, 2012; Kafouros, Buckley, Sharp, & Wang, 2008). Meeting foreign customer expectations and the required standards in the host nations, firms innovate new products or processes. Examining data of exporting firms from a region in Chile between 2006 to 2011, Geldres-Weiss et al. (2016) found that strategic activities such as export market innovation and export product innovation enhance experiential knowledge which reduces risk and uncertainty associated with internationalisation. Concerning the decision-making process relating to foreign markets selection and entry, Chetty et al. (2015) noted that entrepreneurs use effectuation and causation logics, alternating the two in their decision-making. However, those with existing partners in foreign markets relied mostly on effectuation to select and enter international markets.

2.2.6 Determinants of Small Business Growth

In an attempt to classify growing firms, entrepreneurship scholars have investigated factors seen as determinants of growth. These factors are broadly categorised as external and internal. However, these classifications are approached differently by various scholars. In particular, some studies focused on the entrepreneurs and the context (environment) (Hay & Kamshad, 1994; Hitt et al., 2000). Others have looked at the entrepreneur, the firm and the strategy of the firm (Storey, 1994). As emphasised by Storey, the entrepreneur's starting resources, firm's characteristics, and business' strategies informed these categorisations.

In Table 2.1 below, Storey presents a list of factors influencing small firms' growth in connection with the entrepreneur, the firm and the strategy of the firm.

Table 2.2: Storey's (1994) Variables Influencing Small Business Growth

Entrepreneur	Firm	Strategy
Motivation	Age	Workforce Training
Unemployment	Sector	Management training
Education	Legal form	External Training
Management Experience	Location	External Equity
Number of Founders	Size	Technology
Prior self-employment	Ownership	Market positioning
Family History		Market Adjustments
Social marginality		Planning
Functional Skills		State Support
Training		New products
Age		Management Recruitment
Prior Business failure		Customer Concentration
Prior Sector Experience		Competition
Prior Firm size Experience		Information and advice
Gender		Exporting

Source: Storey (1994)

Moreover, in a quantitative study conducted by Baum, Locke, & Smith (2001) in the United States, with a sample of 307 companies in the same industry, they found that entrepreneur's motivation resulting from self-efficacy, growth goals and vision with other factors such as general and specific competencies of the chief executive officers as well as competitive strategies have a direct impact on venture growth while the environment has indirect effects. In a later longitudinal study, Baum & Locke (2004) examined entrepreneur's motivation (comprising goals, self-efficacy, and vision) finding that all three have direct effects on venture growth.

Growth occurs at the intersection of these three spheres (entrepreneur, firm and strategy): all the components must connect properly for rapid growth. The entrepreneur makes decisions, and the firm chooses the right strategy for the execution. Non-growing or failing firms are deficient in at least one area. The ultimate challenge is the appropriate combination of these components. The presence and proper combination of these characteristics can be a predictor of growth, while the absence or neglect of one or more could be a barrier to growth. For instance, Storey suggests that the willingness of the entrepreneur to share equity with external entities such as banks and angel investors among other things could accelerate growth while their reluctance was a barrier or constraint on growth. Interestingly, Wiklund et al. (2003) found that firms that experience little or no growth are primarily due to their unwillingness to grow (Cliff, 1998). Thus, the most strategic decision lies with the entrepreneur (Shepherd et al., 2015; Vermeulen & Curşeu, 2010) and decisions on "how much to grow" is often made in the early years of the firm which "have profound, long-lasting implications for performance" (Gilbert et al., 2006, p.929).

Understanding the decision-making process of the entrepreneur is imperative. As research in the field of entrepreneurship advances, scholars turned their attention to cognitive variables to understand the growth-related decision of the entrepreneurs (Armstrong et al., 2012; Baldacchino et al., 2015; Baron, 2004). According to Wright & Stigliani (2013), an attentive perusal of entrepreneurs' growth decisions as well as the knowledge structures and cognitive styles used in the process will advance knowledge in the field of entrepreneurship. In a longitudinal qualitative study of 30 entrepreneurs in Western Canada over a five-year span, Dutta & Thornhill (2008) found that entrepreneurs' cognitive styles determine their approaches toward framing and reviewing growth intention. Their study further revealed that their

cognitive style shapes entrepreneurs' growth intention resulting from their environmental perceptions. Besides, Knockaert et al. (2015) also maintain that the formation and promotion of growth intention among academic entrepreneurs are contingent upon cognitive style. Evidence suggests that cognitive style plays a vital role in the formation of growth intention, however, very little is known about this in the Australasian context. Australia and New Zealand offer a unique characteristic from the rest of the developed world. Accessing entrepreneurial intention among developed nations, Australia was found to be below the 15.1 percent average for all developed countries, while New Zealand SMEs are also found to be low in growth aspiration (Steffens & Omarova, 2019; Whittaker et al., 2011).

Most of the empirical works done on entrepreneurial growth, as seen in Table 2.1 are conducted in Sweden and the United States. However, entrepreneurship scholars have stressed that importance of the context in which the entrepreneur operates. There are pieces of evidence that contextual factors like location, industry, market, environmental hostility and institutional environment affect entrepreneurial behaviour (Puente et al., 2017; Troilo, 2011; Wiklund, Patzelt, & Shepherd, 2009; Wiklund & Shepherd, 2003). Therefore, there is a need to study the phenomenon of growth in the Australasia context, and this study did.

2.3 Entrepreneurial Cognition

Entrepreneurial cognition is central in the entrepreneurial process (Baron, 2004; Mitchell et al., 2002; Mitchell et al., 2007). Understanding how entrepreneurs think will help to analyse their action better. Entrepreneurship researchers have promoted the importance of entrepreneurial thinking because this plays a huge role in entrepreneurial decision-making (Shepherd et al., 2015; Oyson & Whittaker, 2015; Allinson et al., 2002; Groves et al., 2011). Furthermore, the cognitive perspective has been advocated as a "valuable tool for answering entrepreneurship's basic why questions" (Baron, 2004, p.221).

These questions cut across vital entrepreneurial phenomena such as opportunity identification (Baldacchino et al., 2015) and growth: "Why are some entrepreneurs more motivated than others to grow their firms?" (Wright & Stigliani, 2013, p.15). Gaglio (2004) proposes counterfactual thinking as one of the mechanisms through which entrepreneurs recognise and nurture innovative opportunities. In an experimental study conducted recently,

Frederiks et al. (2019) found that the type of cognitive thinking employed by entrepreneurs impacts the quality of new venture ideas. They found that the use of future-oriented thinking such as prospective thinking which could be enhanced by prior knowledge would lead to new venture ideas of higher quality compared to counterfactual thinking. However, Arora et al. (2013) suggest that the amplifying effects of experience could be hampered by the dispositional attributes of the entrepreneur resulting from their individual differences. The heterogeneity of the entrepreneurs' metacognitive thinking influences entrepreneurial growth decision making (Shepherd et al., 2015). Ginn & Sexton (1990) found that the difference between owners of slower growth firms and rapid growth firms originates from their cognitive profile. Besides, Sadler-Smith (2004) also observed that cognitive styles positively impact sales growth, quality of products and services as well as the efficiency of operations. This recent shift of attention from traits of the entrepreneur to entrepreneurial cognition offers hope of understanding the entrepreneurial processes with deeper insights into how entrepreneurs think and the effects on entrepreneurial decision making (Armstrong et al., 2012). Thus, drawing upon two strands of research into entrepreneurial cognition (motivation and cognitive logic), this study attempts to unravel some of the questions surrounding the formation of growth intention.

2.3.1 Entrepreneurial Motivation

For a more in-depth and better understanding of entrepreneurial cognition, scholars in the field of entrepreneurship have recommended that entrepreneurial motivation be revisited (Carsrud & Brännback, 2011; Shane et al., 2003). Decision making in different stages of the entrepreneurial process has been heavily linked with motives of entrepreneurs (Carsrud & Brännback, 2011; Jayawarna et al., 2013; Murnieks et al., 2019; Shane et al., 2003). Consequently, human motivation cannot be overlooked in the entrepreneurial process because the dominant player is the entrepreneur.

Entrepreneurs make decisions to commence the entrepreneurial process and are regularly called to decisions all through the entrepreneurial process (Holland & Shepherd, 2013; Shepherd, 2011; Shepherd et al., 2015). The motives for these entrepreneurial decisions have been extensively researched by entrepreneurship scholars. Initially, some scholars believed that the primary motivation for entrepreneurial decision is economic gain (Carsrud & Brännback, 2011) but recently, social entrepreneurship is becoming prominent as some

entrepreneurs are now devoted to societal benefit (Yitshaki & Kropp, 2016). A recent systematic literature review by Murnieks et al. (2019) depicted most of what has been studied so far, as seen in Figure 2.1. They extensively reviewed existing literature on predictors of

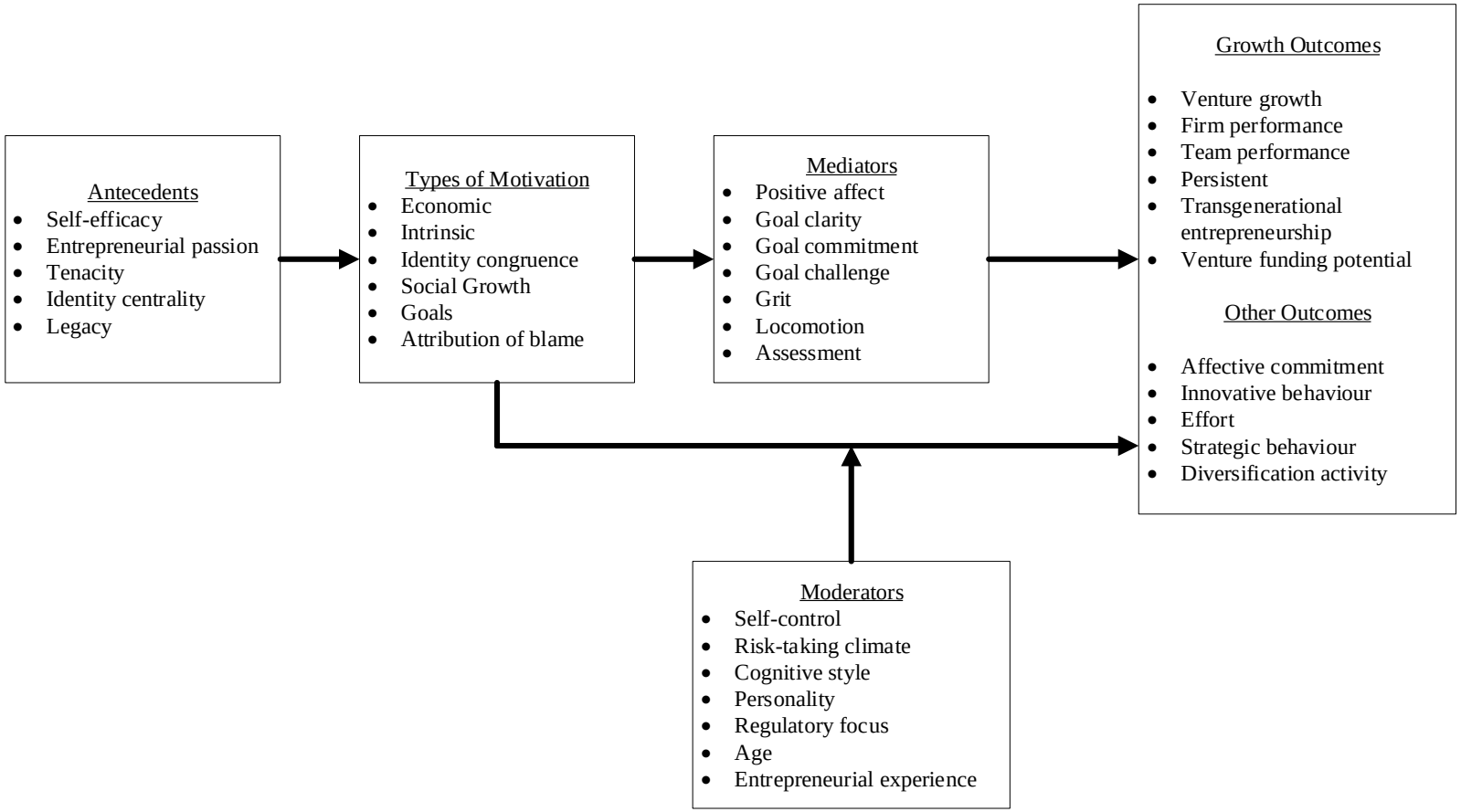

Figure 2.1: Entrepreneurial Motivation during Venture Growth

Source: Murnieks, Klotz, & Shepherd (2019)

entrepreneurial motivation in relation to growth outcomes as well as examining various mediators and moderators already studied.

Entrepreneurial motivation influences entrepreneurial decisions and how entrepreneurial opportunities are pursued in the entrepreneurial process (Shane et al., 2003). At the centre of the entrepreneurial process is entrepreneurial opportunity. Casson (1982) defined entrepreneurial opportunities as objective situations through which raw materials, new goods, services and organisation methods can be introduced in the market for a value higher than their cost of production. Interestingly, entrepreneurial opportunities have been found to impact growth-oriented intention positively (Cassar, 2006; Douglas, 2013). Perceived ability to initiate and manage the entrepreneurial process is another motivational factor for entrepreneurial decision-making (Davidsson, 1991; Hsu et al., 2017).

Furthermore, entrepreneurial self-efficacy is a determinant of entrepreneurial intention as well as contributing to the formation of growth intention and increase in venture performance (Bingham et al., 2007; Boyd & Vozikis, 1994; Cumberland et al., 2015; Douglas, 2013; Hmieleski & Corbett, 2008; Miao et al., 2017; Schlaegel & Koenig, 2014; Wilson et al., 2007). Another significant aspect of entrepreneurial motivation is that in the literature, need for achievement has been associated with entrepreneurial motivation (Busenitz & Lau, 2001; Davidsson, 1989, 1991) and extant literature has established the relationship between need for achievement and growth intention (Kozan et al., 2006).

2.3.2 Entrepreneurial Motivation for Venture Start-up

A considerable amount of literature has been published on entrepreneurs' start-up motivation. These studies have identified factors that drive entrepreneurial motivation. In a quantitative study of 401 nascent entrepreneurs in the United States, Edelman et al. (2010) found that desire for recognition and independence as well as financial success motivate entrepreneurs into new venture initiation. Studying a sample of 465 university students from cross-sectional data, Farhangmehr et al. (2016) established that competencies which are the bedrock of entrepreneurial self-efficacy, significantly predict entrepreneurial motivation. In the same vein, a quantitative study of 237 samples from eastern Poland's Podlasie region, Tyszka et al. (2011) suggest that entrepreneurs high in self-efficacy are more motivated to exploit

opportunities; however, this is only true with opportunity-driven entrepreneurs (not necessity-driven). To determine the effects of socio-economic variables, Hessels et al. (2008) compared motives across and found that economies with GDP growth will have more entrepreneurs whose motivation for a start-up is to increase wealth while independence and necessity motive is prevalent with economies without GDP growth. Surprisingly, they found that social security encourages necessity motive but discourages independence motive and shows no significant relationship with increase-wealth motivation.

2.3.3 Entrepreneurial Motivation for Survival

The world of business is very complex, and the battle for survival becomes real immediately after venture initiation. However, there is a relatively small body of literature that is concerned with entrepreneurs' motivation to survive. An exception is DeTienne et al. (2008) conducting an experimental study with a sample of 89 entrepreneurs to examine factors that motivate entrepreneurs to persist when their firms are underperforming and propose that their personal investment, previous venture success and perceived efficacy contribute significantly to their persistence, although entrepreneurs with other alternatives apart from underperforming firms are less likely to persist. In a more recent study by Rey-Martí et al. (2015), qualitative data from 35 women-led service firms from Valencia in Spain were analysed through Crisp-set qualitative comparative analysis. Their results suggest that those with risk-taking motive are more likely to survive than those seeking better work-life balance.

Meanwhile, Morris et al. (2012: 12) point out that risk-taking is profoundly influenced by the "occurrence of salient events and the manner in which they are processed". This confirmed the conclusion made by Loewenstein et al. (2001), in their work "risk as feelings" that individual reaction to risky situations is dependent on emotional anticipation and experience. Hence, entrepreneurs with positive feelings and peak experiences might embrace risk-taking actions while those with low arousal resulting from negative emotions might be risk-averse (Schindehutte et al., 2006). Unlike Rey-Martí et al. , Stenholm & Renko (2016) argue that entrepreneurs with an intense positive feeling associated with an entrepreneurial role such as inventing and developing are likely to engage in "make-do" practices that could promote the survival of their firms. While striving to survive, new ventures try to increase their market presence motivating them to grow in areas that are vital to their survival.

2.3.4 Entrepreneurial Motivation for Growth

Scholars have research entrepreneurial growth extensively. The motivation for growth has also gained the attention of both practitioners and scholars but not as much as motivation for venture start-up (Achtenhagen et al., 2010; Murnieks et al., 2019). A question such as "why are some entrepreneurs more motivated than others to grow their firms?" has been recommended for scholastic probing (Wright & Stigliani, 2013, p.15). To date, several studies have investigated the impact of motivation on firm growth (Baum & Locke, 2004; Delmar & Wiklund, 2008; Wiklund et al., 2003) and a relationship has been established between growth motivation and firm growth. Moen et al. (2016) analysed the quantitative data from 247 firms over 11 years. They concluded that motivation for growth was highly and frequently associated with international orientation which greatly impact growth in revenue and exports.

Furthermore, Baum et al. (2001) suggest that vision, growth goals and self-efficacy impact entrepreneurs' motivation for growth. Baron et al. (2016) found that entrepreneurial self-efficacy positively impact venture growth and this relationship is mediated by goal difficulty while Tumasjan & Braun (2012: 626) point out that "promising business ideas result from forward-looking visions". They argue that visions build promotion-focused individuals who are open-minded, embracing a variety of ideas to enhance venture performance. In their review of the literature on entrepreneurial growth, Wright & Stigliani (2013) concluded that there is a need for more empirical studies on factors that influence entrepreneurs' motivation. Recently, a quantitative study of 122 high technology firms in the United States Drnovsek et al. (2016) found that entrepreneurs who enjoy activities associated with the entrepreneurial role identity of a developer are motivated to grow their firms because of their commitment to growth goals. This view is supported by Mueller et al. (2017) who maintain that passion for developing positively influence grit which positively relates to venture performance.

2.4 Motivation and Opportunities

Many factors have been identified as motivating entrepreneurs for growth (Baum et al., 2001). According to Davidsson (1991), perceived entrepreneurial opportunity could trigger growth motivation in entrepreneur, which will eventually lead to actual growth. Figure 2.2 by

Davidsson (1991) shows the model of determinants of small firm growth whereby small firms are motivated to grow because of three factors, namely: ability, need and opportunity. A recent study by Gielnik et al. (2017) involving a sample of 201 small business managers with over 5 years of their firm performance data (which resulted in 836 observations) found a strong positive impact on venture performance over time for owner-managers who focused on entrepreneurial opportunities. In another study by Hinton & Hamilton (2013), trying to characterise high-growth firms in New Zealand using a case study design, they observed six firms and one of the four dimensions that describe their essential features is opportunity exploitation. This again, is stressing the importance of entrepreneurial opportunity in the growth of firms.

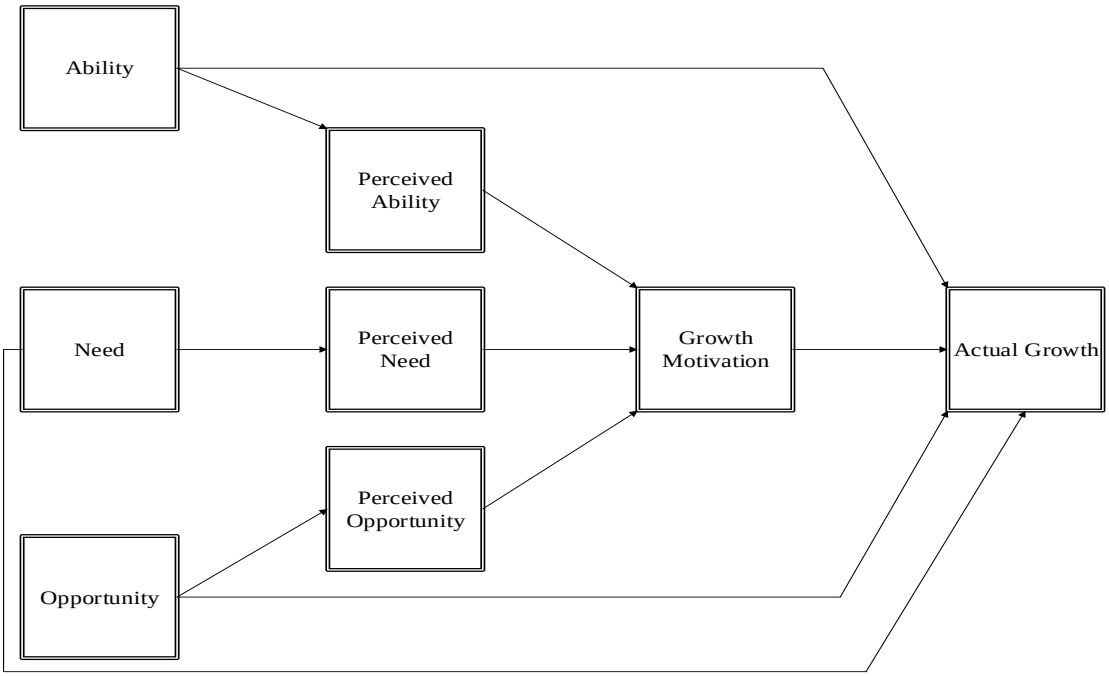

Figure 2.2: Model of Determinants of Small Firm Growth.

Source: Davidsson (1991)

Networking, prior knowledge and alertness which are crucial to opportunity recognition and development are found to positively impact venture performance (Sambasivan et al., 2009; Shu et al., 2018; Tang et al., 2012; Vasilchenko & Morrish, 2011). Entrepreneurial action occurs at the interconnection between individuals and opportunities (Shane & Venkataraman, 2000). Shane and Venkataraman further noted that beyond opportunity recognition and

evaluation some actors have the ability to discover and exploit such opportunities than others because of "the effects that differences among opportunities may have on their initial identification" (Grégoire & Shepherd, 2012, p. 753).

Consequently, opportunity identification has been regarded as one of the essential competencies of successful entrepreneurs and has gained significant attention in the entrepreneurship literature (Ardichvili et al., 2003; Grégoire et al., 2010). Entrepreneurship scholars have also identified motivation as the set of triggering forces that springs from within as well as beyond individuals which direct behaviour and determine its intensity, form and duration (Martin & Bartol, 1998; Pinder, 2014), as well as a significant predictor of opportunity identification (Shepherd & DeTienne, 2005).

2.4.1 Entrepreneurial Opportunities

Entrepreneurial opportunity has become central in scholarly discourse. Entrepreneurial growth is dependent on the exploitation of entrepreneurial opportunities (Mueller, 2007). Eckhardt & Shane (2003: 336) defined entrepreneurial opportunities as "situations in which new goods, services, raw materials, markets and organising methods can be introduced through the formation of new means, ends, or means-ends relationships".

Examining the entrepreneur through the lens of modern economic theory has resulted in frequent usage of the term opportunities in entrepreneurship theory. This is "because entrepreneurship studies the behaviour of individuals who specialise in making choices that require intensive use of judgment" (Casson & Wadeson, 2007, p. 285), alluding to the fact that economists continuously refer to the concept of opportunity in order to decide on choices. Hence, entrepreneurial opportunities from the economic perspective suggest that the distribution of information about the state of the economy is pivotal to the existence of entrepreneurial opportunities (Companys & McMullen, 2007).

According to Shane and Venkataraman (2000), entrepreneurial opportunities are "objective phenomena" which existed only in time and space, however, they may not be discerned by all at all time, which means that opportunities exist, only waiting for knowledgeable or alert actors to recognise them (Kirzner, 2009). Different scholars in

entrepreneurship have attached a different meaning to the word "opportunity" which has caused some misunderstanding. Historically, academic conversation on opportunities can be traced to Schumpeter (1934) and Kirzner (1979), which centred on whether the equilibrium is the starting or final conditions for economic opportunities. This dialogue has produced two dominant perspectives: (1) the discovery view (2) the creation view.

> "Put differently, while the Kirznerian entrepreneur discovers and pursues opportunities that exist within markets (and are reflected in the price system), the Schumpeterian entrepreneur discovers opportunities that exist outside the economic sphere (and are not yet reflected in the price system) and pursues these opportunities by bringing them into the marketplace. Because of this difference, entrepreneurial activities have a fundamentally different effect on the market process: while in Kirzner's view they are equilibrating forces, Schumpeter sees them as the crucial drivers of dis-equilibrating economic development. …….If interpreted in this way, Schumpeter's approach differs from the Kirzner tradition in that opportunities are not pre-supposed for entrepreneurial activity to occur, but are created by the innovative entrepreneur herself" (Buenstorf, 2007, p. 325).

Schumpeter (1934) claimed that opportunities are created by disruptive innovation which destroys the existing market stability making provision for profitable entry. He contended that markets were in stable condition awaiting creative-destructive change which leads to entrepreneurial opportunities. Kirzner (1979) on the other hand, argued that opportunities are all about discoveries and correction of errors that resulted from the imperfect distribution of information among actors thereby causing shortages, surpluses and misappropriation of resources in the market. Accordingly, information search is central to opportunity discovery view while innovation takes the primary stage in opportunity creation. An exploratory study by González et al. (2017) offers probably the most indicative empirical analysis of the relationships between opportunity discovery and information search as well as opportunity creation and innovation radicalness. Their findings from the study show that social entrepreneurs with high innovation radicalness create highly innovative solutions for social problems as well as searching for pre-existing solutions when necessary. However, they noted that both innovation radicalness and information searching could be used simultaneously, implying some social opportunities are the product of a combination of creation and discovery.

Emphasising the importance of environmental dynamism and hostility in an emerging market context Urban (2018) investigated the relationship between effectuation and opportunity recognition. Analysing quantitative data from 302 enterprises in the renewable

energy sector in South Africa, the result reveals that entrepreneurs heavily relied on effectual principles to form partnerships, remain flexible, experiment with ideas and use the affordable loss principle to recognize and exploit more opportunities: this is significant because prior knowledge (what I know) and networking (whom I know) which are core effectuation pillars have also been linked with opportunity recognition (Qian et al., 2016; Shane, 2000; Shu et al., 2018).

The debate on entrepreneurial opportunity has been going for decades, but in recent time, scholars are calling for a decisive action to be taken concerning the construct. Foss & Klein (2018) propose the dislodgement of entrepreneurial opportunities as entrepreneurship construct citing that the progress made from this academic discourse is so little. However, Wood & McKinley (2018: 2) maintain that such action will be seen as a disservice to the field of entrepreneurship, suggesting instead that entrepreneurial opportunities be taken as an "umbrella construct capable of unifying competing and complementary theories".

Furthermore, Davidsson (2015: 677) advocated that future research reconceptualise entrepreneurial opportunities as a formative construct represented by three new constructs: "new venture ideas," "external enablers," and "opportunity confidence" because reflective authors appear to struggle with the term "entrepreneurial opportunity". Despite the ongoing debates about entrepreneurial opportunity as a construct, scholars have identified it as a driver of entrepreneurial and economic growth (Eshima & Anderson, 2017; Miocevic & Morgan, 2018). Consequently, entrepreneurial opportunities and other drivers of growth intention, such as need for achievement will be considered in this study.

2.4.2 Need for Achievement

Building on Murray's (1938) theory of achievement motivation, McClelland (1965) linked entrepreneurship and need for achievement. As research develops in the field of entrepreneurship and domain of personality traits, scholars have given great attention to need for achievement. McClelland (1961) theorised that individuals with a high need for achievement are more likely to embrace tasks with high personal responsibility for the result

which requires individual competencies and skills as well as having objective feedback on performance from entrepreneurial action.

Moreover, McClelland claimed that entrepreneurial tasks require a higher level of competencies and skills than other career paths. Hence, individuals who are high in need for achievement are more likely to choose an entrepreneurial career path than others. One of the activities associated with the entrepreneurial role, risk-taking, was found to be positively impacted by the need for achievement in 230 entrepreneurs in a mid-western state in the United States (Chen et al., 2012). Further, Johnson et al. (2004) and Stewart & Roth (2007) through their meta-analysis of studies on need for achievement and entrepreneurship conclude that individuals with a high degree of need for achievement might found a business and are likely growth-oriented.

In Australia, Perry et al. (1986) surveyed samples of entrepreneurs and other non-entrepreneurial occupation using Lynn's scoring procedure. They compare need for achievement scores for the samples, together with similar results from New Zealand and the United Kingdom and discovered that Australian entrepreneurs are higher in need for achievement than others. This view is supported by Kusumawijaya (2019), who found that need for achievement positively influence employees' entrepreneurial intention in Bali, Indonesia. Conversely, Hansemark (2003) reported no significant relationship between need for achievement and business start-ups in a study conducted in Sweden. The reason for these mixed findings could be attributable to context as another study which examines need for achievement in United States, China and Latvia noted differences in the variance explained in need for achievement by conscientiousness, cognitive complexity, goal orientation, age, and gender across "these three very diverse cultures and that variables related to need for achievement vary between the countries" (Carraher, Buchanan, & Puia, 2010, p. 378).

Some studies, for example, have examined venture performance and persistence in relation to need for achievement. Sibin et al. (2007) conducted a longitudinal study with a sample of 230 in the United States and reported that need for achievement is positively related to entrepreneurial persistence. Scholars noted that the entrepreneurial process is a time-dependent stage-process: thus, entrepreneurs need persistence to survive, succeed and grow (Shane and Venkataraman, 2000). In examining growth intention of small business owners in

China, Busenitz & Lau (2001) found that entrepreneurs who are high in need for achievement have the intention to grow their firms. Similarly, Davidsson (1989) found a significant positive relationship between growth willingness and need for achievement. Hence, need for achievement plays a pivotal role in the entrepreneurial process as it has been highlighted as one of the qualities entrepreneurs needed to succeed (Unger et al., 2015; Viinikainen et al., 2017) and therefore, could have a significant effect on growth intention.

2.5 Entrepreneurial Self-efficacy

The concept of self-efficacy originated from Bandura's "social cognitive theory" (Bandura, 1977; Bandura & Walters, 1977) and has over the years taken a prominent position in entrepreneurship research. Most of the earliest research in entrepreneurship focused on general efficacy (Boyd & Vozikis, 1994; Krueger, 1993) although experts argue that self-efficacy by its conceptualisation is domain-specific (Bandura, 1997). Shifting towards field-specific constructs, entrepreneurship researchers have examined the explanatory role of entrepreneurial self-efficacy concerning some outcomes such as career choice, entrepreneurial intention, and performance (Baron et al., 2016; Cardon & Kirk, 2015; Chandler & Jansen, 1992; Krueger, 1993; Miles et al., 2016; Piperopoulos & Dimov, 2015; Scherer et al., 1989). Entrepreneurial self-efficacy refers to "the strength of a person's belief that he or she is capable of successfully performing the various roles and tasks of entrepreneurship" (Chen et al., 1998, p.295). Other scholars have also looked at its mediating and moderating roles (Fitzsimmons & Douglas, 2011; Gielnik et al., 2017; Hsu et al., 2017; Sieger & Minola, 2017) as well as an outcome of entrepreneurship education and training (Botha & Bignotti, 2016; Jahani et al., 2018; Maritz & Brown, 2013; Shinnar et al., 2014).

The new venture creation process is in stages with different skills and ability required for tasks associated with each stage. "Entrepreneurial self-efficacy may play an important role in uncovering the essential skill set needed throughout the various stages of the new venture development process" (Kickul et al., 2009, p.441). Acknowledging the role of entrepreneurial self-efficacy in these stages, Kickul et al. noted that difference in entrepreneurs' cognitive preference impacts the assessment and perception of their ability to perform certain entrepreneurial tasks. Some entrepreneurs are better than others in their ability to identify and recognise opportunities while some are better in assessing, evaluating, and sourcing resources.

In an investigation into the configurational effect of entrepreneurial self-efficacy, risk perception and passion Stroe et al. (2018) found that beyond passion, it is the combination of risk perception and entrepreneurial self-efficacy that result in the usage of a causal and an effectual logic. They further propose that "entrepreneurs who experience harmonious passion and are self-efficacious eschew causal decision-making logic in favour of effectual logic" p. 269. Therefore, a mechanism like cognitive logics could explain the connection between these predictors (e.g. passion and entrepreneurial self-efficacy) and growth intention.

2.5.1 Entrepreneurial Self-efficacy and Entrepreneurial Career Intention

Entrepreneurial self-efficacy has been widely linked with entrepreneurship career intention and has been singled out as a critical predictor of entrepreneurial intention (Laguna, 2013; Laviolette, 2012; Piperopoulos & Dimov, 2015; Schmutzler et al., 2019; Sweida & Reichard, 2013). For decades, this relationship has been confirmed in diverse culture and samples. For example, Wilson et al. (2007) conducted a US study with more than 4000 participants in two sample groups. The sample comprises of adolescents middle/high school students and adult master of business administration (MBA) students. They found that entrepreneurial self-efficacy positively influenced entrepreneurial career intention across both sample groups. Almost every research that has been conducted on ESE-intention relationships with students' sample across the world is supported by this finding (Chang et al., 2019; Naktiyok et al., 2010; Rosique-Blasco et al., 2018; Solesvik, 2017; Tsai et al., 2016).

Further, Laguna (2013) analysed a non-student sample of unemployed individuals (N = 332) in a longitudinal study and reported that entrepreneurial self-efficacy is an important predictor of entrepreneurial intention. Additionally, Bullough et al. (2014) examine re-entry intention of entrepreneurs under the condition of war. They noted that despite the uncertainty associated with this context, entrepreneurs with a high degree of entrepreneurial self-efficacy still hold entrepreneurial intention.

To better understand the mechanisms of the relationship between entrepreneurial self-efficacy and entrepreneurial intention, experts have examined the mediating role of attitude towards entrepreneurship. They concluded that the ESE-intention link could be explained by

looking at the individual's attitude towards entrepreneurship (Laviolette, 2012; Rosique-Blasco et al., 2018; Tsai et al., 2016). Besides being one of the reasons for this relationship, a recent study by Hsu et al. (2019) argues that attitude towards entrepreneurship also plays a moderating role in this relationship. They noted that individuals with a strong perception of fit with entrepreneurship strengthen the ESE-intention link, while those with low or no fit perception weaken the relationship. Boyd & Vozikis (1994) claim that observational learning from role models enhances entrepreneurial self-efficacy. Similarly, Austin & Nauta (2016) found that stronger entrepreneurial intention is an outcome of both self-efficacy and a number of entrepreneurial role models. Therefore, Nowiński & Haddoud (2019) investigated the joint contribution of attitude towards entrepreneurship, combined with inspiring role models. The result suggests that inspiring role models would positively impact entrepreneurial intention only when combined with a positive attitude towards entrepreneurship together with entrepreneurial self-efficacy. Knowledge can be acquired from an entrepreneurial role model, and this translates into social and human capital. Kasouf, Morrish & Miles (2015) suggest that experience which forms human and social capital enhances entrepreneur self-efficacy.

2.5.2 Entrepreneurial Self-efficacy and Firm Performance

There is an unambiguous relationship between entrepreneurial self-efficacy and firm performance. In a meta-analysis of the extant literature on the relationship between entrepreneurial self-efficacy and performance, Miao et al. (2017) analysed 26 studies drawing on 27 sample groups with a total sample size of 5,065. They discovered a moderately strong effect with ESE-firm performance correlation of 0.309. Cumberland et al. (2015) surveyed a sample of franchisees in a Midwestern U.S. state to investigate the influence of the ESE dimensions on firm performance in a challenging environment. They found that three dimensions of entrepreneurial self-efficacy (innovation, management, and financial control) impact firm performance in such an environment. The strength of these links is, however, dependent on competitive intensity and technological turbulence. Furthermore, Miao et al. noted that performance measurement (subjective vs objective) affect the strength of this relationship. Meanwhile, other researchers have also found that both individual and environmental factor moderate this link. For example, Hmieleski & Baron (2008b) argue that environmental dynamism, combined with moderate optimism, will enhance the effects of high entrepreneurial self-efficacy on firm performance positively. However, high optimism in

dynamic environments will negatively impact the effects of high entrepreneurial self-efficacy on firm performance.

There is a thin line between optimism and overconfidence. The line could be just crossing from moderate to high in dynamic environments which is detrimental to performance. “Optimism and overconfidence are both beneficial when deciding to become an entrepreneur, but overconfidence is harmful when making decisions in response to setbacks” (Trevelyan, 2008, p.986). Moreover, Moores & Chang (2009) found that self-efficacy can lead to overconfidence which eventually impacts performance negatively.

Previous research has investigated the boundaries of the relationship between entrepreneurial self-efficacy and firm performance from individual factors. Baron et al. (2016) analysed contingency effects of goal-setting and self-control and noted that because entrepreneurs are high in self-efficacy, they might set difficult goals. Although these goals might be difficult, they are attainable because entrepreneurs apply self-regulation during goal-setting (Koch & Nafziger, 2011; Latham & Locke, 1991). Further, Baron et al. (2016) discovered that increases in goal difficulty lead to increases in firm performance to a certain level. But beyond this point, any additional increase will result in decreases in firm performance. Achieving the goals set by entrepreneurs, there is a need to persist, as previous research has linked goals to persistence (Gatewood et al., 2002; Zhao & Wu, 2014). Analysing data from 129 entrepreneurs in the Northeastern United States, Cardon & Kirk (2015) found that entrepreneurial self-efficacy could result in sustained entrepreneurial action. They claim that this relationship is explained by entrepreneurial passion for founding and inventing. Therefore emotion, especially passion, plays a pivotal role in entrepreneurial behaviour.

Finally, a review of existing literature on entrepreneurial motivation-venture performance relationship shows no empirical results regarding the mediating effects of effectuation (See Figure 2.1). Thus, this study is examining the relationship between entrepreneurial motivation and growth intention as well as the mediating role of effectuation.

2.6 Emotion and Entrepreneurship

The role of emotion in entrepreneurial decision-making is gaining prominence in entrepreneurship research (Baron, 2008; Biniari, 2012; Cardon et al., 2012; Jennings et al., 2015). Human decisions are not absolutely bounded by rationality but are strongly affected by emotion (Bechara, 2004; Coricelli et al., 2007). For example, recent studies in decision-making have highlighted the potency, predictability and pervasiveness of emotion in driving decision making (Dunning et al., 2017; Lerner et al., 2015). Confronted with choices in the face of economic uncertainty, decisions are influenced by anticipated feelings of the consequences of choice made (Bechara, 2003; Bechara et al., 2000; Dunning et al., 2017; Naqvi et al., 2006).

Entrepreneurship scholarship has been extended richly for more than a decade with intriguing research in the area of emotion. Entrepreneurial pivotal concepts such as risk perception (Podoynitsyna et al., 2012), self-employment (Patzelt & Shepherd, 2011), business failure (Byrne & Shepherd, 2015; He et al., 2017), opportunity evaluation (Foo, 2011; Audretsch et al., 2011), venture creation (Podoynitsyna et al., 2012; Stanley, 2010), and entrepreneurial outcomes (Jennings et al., 2015) have been examined in relation to emotion.

Most emotion research in entrepreneurship has tended to fall under one of three broad headings: mixed (Hayton & Cholakova, 2012; Podoynitsyna et al., 2012; Wolfe & Shepherd, 2015; Welpe et al.,2011), negative (Patzelt & Shepherd, 2011; Wolfe & Shepherd, 2015; Biniari, 2012) and positive (Biraglia & Kadile, 2017; Jennings et al., 2015; Mitteness et al., 2012) emotion. Several pieces of empirical evidence suggest emotions associated with life experiences exert a substantial effect on entrepreneurs' decision, motivation and action. While we know the general importance of emotion, we know little about positive emotion other than their impact on the entrepreneurial process. Risk perception is central to entrepreneurial decision-making (Brustbauer, 2016). Conflicting and mixed emotions are found to influence entrepreneurs' risk perception strongly, thus impacting their judgment (Podoynitsyna et al., 2012) and opportunity evaluation (Foo, 2011) profoundly.

Furthermore, Welpe et al. (2011) noted the role played by mixed emotions in the exploitation of opportunity, such that joy and anger show a robust positive relationship with sexploitation tendencies whereas fear reduces it. More than any other career path,

entrepreneurs encounter negative emotion resulting from high-risk taking, job and income uncertainty, but they develop coping mechanisms (Patzelt & Shepherd, 2011). In the case of failure, entrepreneurs perceive it as a goal not met (Wolfe & Shepherd, 2015) and this emotion can lead to an improvement in subsequent action (He et al., 2017).

Positive emotion research in entrepreneurship has multiplied over the years. Creativity which is an essential component of the entrepreneurship process relates significantly with positive emotion, both at the individual and firm-level (Baron & Tang, 2011; Hayton & Cholakova, 2012). As entrepreneurs with positive emotion state ambitious and broad goals, effort is enhanced for immediate and future-oriented entrepreneurial tasks needed for the satisfaction of the stated goals (Delgado-García et al., 2012; Foo et al., 2009), selecting ideas and entrepreneurial tasks in line with these goals stimulate creativity (Baron & Tang, 2011; Hayton & Cholakova, 2012; Perry-Smith & Coff, 2011). Over the past few years, scholars have increasingly turned their attention to entrepreneurial passion. Given the role of passion in human action, researchers have examined the effect of passion on entrepreneurial behaviour. Passion has been recognised as the fuel that power and sustains entrepreneurial action even in the face of obstacles (Cardon & Kirk, 2015; Gielnik et al., 2015).

2.6.1 Identity and Passion

The outcome of passion through identity processing styles has delineated identity centrality in the study of passion. Passion is defined as a strong feeling toward an activity that people like which they find important, and invest time and energy, undisputedly becoming part of their identity (Vallerand, 2010; Vallerand et al., 2003a). Therefore, identity plays a pivotal role in the process associated with the development of passion. Scholars have defined identity as internalised prospects concerning those characteristics that individuals value as defining, distinctive as well as enduring to them, that is at least partly revealed in the role they performed (Burke & Reitzes, 1991).

Berzonsky (1992, 2011) captures identity styles with individual differences in the social-cognitive processes used in the processing and internalising information that is relevant to their self-identity. Identity styles comprise of different ways of internalising information in the formation of self-identity. These differences have been linked with the origin of passion,

as different internalisation process leads to different types of passion (Vallerand, 2010; Vallerand et al., 2003a) and because the role of identity styles are relevant in the discussion of passion. Berzonsky (1992) proposed three processing orientation for forming and maintaining a sense of self-identity: (1) informational, (2) normative, and (3) diffuse/avoidant. A recent empirical study by Bouizegarene et al. (2018) found that informational identity style which is linked with autonomy, mature interpersonal relationships and the educational goal are positively associated with harmonious passion. While normative identity style associated with "avoidant coping strategies", "need for closure" and "intolerance for ambiguity" is positively related to obsessive passion. These findings validate the notion that "identity is a definitional component of passion" (Bouizegarene et al. 2018, p. 69). There is a large volume of published studies on the passion for various life activities supporting the dualistic conceptualisation of passion (Amiot et al., 2006; Carbonneau et al., 2008; Ho et al., 2011; Murnieks et al., 2018; Vallerand et al., 2003b; Vallerand et al., 2008a; Vallerand et al., 2008b). This dualistic conceptualisation of passion has revealed the double-sided nature of passion which deepens understanding of the role of passion in human actions.

2.6.2 The Dualistic Model of Passion (DMP)

The dualistic model of passion as conceptualised by Vallerand and his colleagues (Vallerand, 2010; Vallerand et al., 2003a) posits that individuals may form a passion for activities that they like which has been integrated into their identity. Building on self-determination theory (Ryan & Deci, 2000), the DMP claims that to satisfy elementary psychological needs of autonomy, relatedness and competence, people perform various activities throughout their life. In their quest, they engage in some mandatory activities such as study and work. They perform others which are optional, particularly those that are done during relaxation time. In the process of trying out many activities, they may find that some activities are more exciting than others and start to form a preference for them (Ryan & Deci, 2003) especially those that are important and they enjoy.

The DMP further posits two different ways of internalising passion into identity resulting in two types of passion: harmonious passion (HP) and obsessive passion (OP). Harmonious passion rises from autonomous integration of activities into a person's identity. An autonomous internalisation happens when individuals accept activities that are important

to them freely and without any condition (Vallerand, 2010). Consequently, individuals with this type of passion are only desirous of performing activities that they have control over (Bouizegarene et al., 2018). Thus, individuals with harmonious passion engage responsibly in conducive activities leading to positive affective, cognitive and behavioural outcomes (Curran et al., 2015).

Obsessive passion accounts for the possibility of passion turning bad. This second type of passion describes a situation when individuals are brought under the control of activities they perform. Persons with an obsessed passion usually lose control during engagement in the activities they desire strongly (Rip et al., 2012). For obsessive passion, the activity is integrated into their identity via the controlled internalisation process, and this occurs when certain activities are internalised due to external pressure and conditions attached to the activity they liked (Bouizegarene et al., 2018; Ryan & Deci, 2000).

A key study comparing harmonious and obsessive passion is that of Mageau et al. (2011), in which they examine the role of self-esteem fluctuations with their performances in their passionate activity. They asserted that individuals with obsessive passion experience self-esteem fluctuations dependent on their performances in their passionate activity. *O*n the contrary, people with harmonious passion have no self-esteem fluctuation whatever the performance in their passionate activity might be. Ratelle et al. (2004) found that obsessive passion is associated with gambling problems and the related consequences such as poor concentration and vitality in daily tasks, as well as anxiety, and guilt. In a study investigating positive life domain outcomes, Stenseng (2008) reported that harmonious passion for leisure activity engagement enhanced positive life domain outcomes. However, obsessive passion for leisure activity engagement impacted life domain outcomes negatively. Stenseng noted that the differences in the contribution of harmonious and obsessive passion for positive life domain outcomes could be seen in the way individuals handle their intrapersonal conflict.

In terms of entrepreneurship, a large and growing body of literature has investigated identity centrality to entrepreneurial passion in recent years (Gielnik et al., 2017; Huyghe et al., 2016; Mueller et al., 2017; Murnieks et al., 2018; Murnieks et al., 2014; Obschonka et al., 2015; Thorgren & Wincent, 2015). In one of the earliest studies on entrepreneurial identity centrality, Murnieks et al. (2014) analysed quantitative data from 221 entrepreneurs to

understand the likely pathways by which entrepreneurial identities might impact entrepreneurial passion. They found that entrepreneurial passion rises and falls based on entrepreneurial identity centrality. Building on the DMP, Thorgren & Wincent (2015) examined the entrepreneurial passion of habitual entrepreneurs and noted that they allot additional passion for entrepreneurial activity. Analysing quantitative data from 704 participants, they found that the obsessive component of passion is dominant in habitual entrepreneurs. However, a closer analysis reveals that portfolio entrepreneurs are also high on harmonious passion.

Recently, Murnieks et al. (2018) set out to understand the factors that drive entrepreneurial passion. Drawing from DMP, they investigated identity-related constructs that may fuel the fire of entrepreneurial passion. They discovered that harmonious entrepreneurial passion is powered by entrepreneurial identity centrality. In contrast, affective, interpersonal commitment fuelled obsessive entrepreneurial passion.

Simon (1967) was unequivocal in his call for a behavioural model that will integrate cognition and emotion for a better understanding of the theory of thinking and problem-solving. A recent systematic literature review concluded that "exploring and understanding the nature of these interdependencies cannot only enhance our understanding of choice processes but also contribute to our appreciation of the functioning of the human mind" (George & Dane, 2016, p. 47). Stroe et al. (2018) proposed a model for entrepreneurial decision that somewhat answers this call by setting passion as a determinant of choice between effectuation and causation. With qualitative data, they found that entrepreneurs high in harmonious passion favour the use of effectuation and high values of obsessive passion in entrepreneurs, support the use of causation. This is worth noting because many reasons are behind the choice of causal or effectual decision processes in entrepreneurial decision-making.

Indeed scholars have explored the emotion of fear in entrepreneurship, however, fear of failure seems to have gained all the attention (Cacciotti & Hayton, 2015). The importance of understanding entrepreneurial failure was highlighted by Shepherd, Haynie, & Patzelt (2013), who noted the accumulation of negative emotions arising from multiple failures of entrepreneurial projects. Because entrepreneurs learn from doing, the entrepreneurial process allows experimentation and failure are inevitable. Shepherd (2003) argues that a negative emotional response could hinder the learning that should take place from business failure,

thereby, suggesting a maximisation of a dual process of grief recovery. In a multiple case study of eight failed businesses, Byrne & Shepherd (2015) found the presence of high negative emotions encourage making sense of loss.

In contrast, high positive emotions offer cognitive resources to motivate and facilitate making sense of the failure event. They concluded that emotion-focused coping assisted in dealing with negative emotions resulting from business failure. He et al. (2017) drew from affective events theory and developed a model to resolve the paradoxical effects of failure, suggesting the crucial moderating role of emotion regulation. Stroe et al. (2019) conducted two studies to access the dualistic regulatory impact of passion on the relationship between fear of failure and negative emotion. They discovered that harmonious passion reduces the relationship between fear of failure and negative affect in both studies. Notwithstanding, the moderating effect of obsessive passion is inconclusive, as it amplifies the relationship in study one but dampens it in the second study. Passion keeps the momentum of entrepreneurs in a challenging environment leading them to overcome barriers to their growth intention.

2.6.3 Identity in Entrepreneurship

Identity is taking a central position in entrepreneurship discussion, especially its role in the conceptualisation of entrepreneurial passion. Advances in the field have begun to emphasise identity as one of the factors that motivate people to embrace entrepreneurship (Baker et al., 2017; Dobrev & Barnett, 2005; Fauchart & Gruber, 2011; Hoang & Gimeno, 2010; Morris et al., 2016; Obschonka et al., 2015). According to Cardon et al. (2009), entrepreneurs experience intense positive feeling not necessarily because it is peculiar to them but, rather, because they are engaging in something that is meaningful and salient to their self-identity. The self-identity of the entrepreneur has been recognised as the source of higher levels of passion and motivation (Murnieks et al., 2014; Obschonka et al., 2015).

Furthermore, Cardon et al. (2009) propose distinctiveness of entrepreneurial role identities according to the associated activities drawing from Gartner et al. (1999) taxonomy of entrepreneurial activities and proposed three role identities: (i)a founder, (ii) a developer (iii) an inventor. These roles have distinct tasks and activities that reflect the hurdles encountered at each phase of the entrepreneurial process (Cardon et al., 2013). Although some entrepreneurs

may show a preference for a particular role identity, others may be passionate about all three identities.

Much of the current literature on entrepreneurial identity pays particular attention to the founder identity. Interestingly, the founder identity has illuminated the venture creation process and roles played by the entrepreneur. Hoang & Gimeno (2010: 41) noted that venture initiation process involved role transition of the entrepreneur from old work roles to the founder role, striving to "incorporate the new role into an overall self-concept". They claim that the quicker they adjust, the better their ability to confront the challenges associated with the venture creation process. Indeed, bridging the gap in differences in the structure of founder identity shapes the entrepreneur's behaviour (Powell et al., 2014). For example, a study conducted by Farmer et al. (2011) examined the role of identity aspiration in determining entrepreneurs' engagement in start-up behaviours from three diverse samples. They found that entrepreneur identity aspiration is strongly associated with discovery and exploitation behaviours across the three samples. More importantly, the relationship is strengthened by prior venture initiation experience. What this means is that entrepreneurs taking up founder identity in a new venture enjoy smooth role transition in contrast to non-entrepreneur, because they benefit from their entrepreneurial role congruence.

The unique characteristics of each type of entrepreneurial ventures emanate from the identities of the founder (Morris et al., 2016). In an inductive and comparative study investigating four entrepreneurs in a nascent market, Zuzul & Tripsas (2019) reported that two of the firms experimented and adapted with environmental shifts, took new opportunities as they evolve to build successful businesses. Whereas the other two followed a set goal that conforms to the original venture conceptions, without consideration for change in the face of environmental dynamism even with declining firm performance. The latter saw themselves as ''revolutionaries'' building innovative firms that drive radical change, while the former saw themselves as ''discoverers'' who identify and exploit new opportunities for successful ventures. They suggest that these identities led to the type of firms that were built mainly through "the mechanism of identity affirmation".

Similarly, Fauchart & Gruber (2011) found that identities impact vital entrepreneur's decisions in the initiation of new ventures shaping the new firm with the entrepreneur's unique

self-concepts. They noted that the decisions concerning things that strategically define a new venture such as the "market segment(s) served", "customer needs addressed" and "resources/capabilities deployed" p. 942. Together, these studies confirm that entrepreneurs will act and behave in ways consistent with their identities, and that includes growth which is embedded in the developer identity.

2.6.4 Entrepreneurial Passion

The role of passion in the entrepreneurial process is attracting scholarly interest in entrepreneurship research. Until recently, passion has been treated as a trait in entrepreneurship research (Baum et al., 2001). However, the latest literature has described passion as strong feelings and also differentiates between two types of passion, namely: harmonious and obsessive passion (Vallerand, 2010; Vallerand et al., 2003a). Other scholars have looked at passion with a unidimensional lens (Baum & Locke, 2004; Cardon, 2008). Passion is defined as intense positive feeling resulting from engaging in entrepreneurial activities which are related to roles meaningful and salient to the self-identity of the entrepreneur (Cardon et al., 2009). Gielnik et al. (2017) claim that harmonious passion is closely associated with entrepreneurial passion as conceptualised by Cardon et al. (2009). Although they both talked about strong positive feeling, Cardon et al. (2013) argue that they are conceptually and empirically different.

Entrepreneurial passion has explained the differences in entrepreneurs' behaviour based on activities essential to their identity (Cardon et al., 2017, 2013; Murnieks et al., 2014). While some entrepreneurs are passionate about founding a venture, others might be passionate about developing or inventing, although this is not to say that they cannot combine two or more identities. There is some evidence that entrepreneurial passion may affect entrepreneurial intention as well as decisions (Biraglia & Kadile, 2017; Chen et al., 2009; Murnieks et al., 2016; Obschonka et al., 2015). Entrepreneurs with the founding identity are associated with venture start-up or creation and some eventually become serial entrepreneur (Breugst et al., 2012; Thorgren & Wincent, 2015). In the literature, entrepreneurial passion for developing has been associated with venture growth (Cardon et al., 2017; Murnieks et al., 2014; Stenholm & Renko, 2016). Passion is an essential driving factor for entrepreneurial motivation such that

passion fuels motivation (Cardon et al., 2016). Entrepreneurial passion may have been an essential factor in entrepreneurial decision in the face of adversity and uncertainty, as well as contributing to entrepreneurial persistence and resilience under adversity and uncertainty (Cardon & Kirk, 2015).

2.6.5 Entrepreneurial Passion and Behaviour

With growing academic interest, research on entrepreneurial passion and their impacts on entrepreneurial action and process has progressed in the field (See Table 2.3). Entrepreneurial passion plays a crucial role in entrepreneurs survival, success and performance (Cardon & Kirk, 2015; Fang & An, 2017; Ma et al., 2017; Mueller et al., 2017; Stenholm & Renko, 2016). The entrepreneurial process is challenging; laden with risk, uncertainty and obstacles (Gielnik et al., 2015). It is a long journey with numerous hurdles that require passion in maintaining the momentum (Baron, 2008; Breugst et al., 2012).

Indeed, researchers have some empirical evidence about the effect of entrepreneurial passion on entrepreneurs' behaviour and action. For example, to understand the drivers that motivate entrepreneurial intention development better, De Clercq et al. (2013) surveyed close to a thousand university students in Canada. They found that the positive association between perceived ability as well as perceived attractiveness to entrepreneurial intention are energised by passion for work. Scholars have also analysed entrepreneurial passion as an antecedent of entrepreneurial intention in later study establishing a strong positive relationship (Biraglia & Kadile, 2017). Understanding entrepreneurial passion at this level is imperative because, over the years, entrepreneurship has been touted as intentional behaviour.

In general, entrepreneurial passion stimulates entrepreneurial behaviour (Murnieks et al., 2014). Moreover, the early stage of venture creation is risky as well as volatile and surviving entrepreneurs are found to be passionate, who make do with the resource at their disposal (Stenholm & Renko, 2016). During this challenging period, entrepreneurs persistently expend efforts (Foo et al., 2009; Gielnik et al., 2015). Their persistence is strongly associated with entrepreneurial self-efficacy, but more importantly, their passion for founding and inventing explains this relationship (Cardon & Kirk, 2015).

Table 2.3: Summary of Selected Empirical Studies on Entrepreneurial Passion

Authors	Sample	Method	Type of passion	Location	Key findings
Baum & Locke (2004)	229 entrepreneur-chief executive officers and 106 associates	Quantitative	Passion for work	North America	Passion has no direct effect on venture growth but indirect effects through goals, self-efficacy and communicated vision.
Biraglia & Kadile (2017)	213	Quantitative	Passion for founding	United States	Entrepreneurial passion positively relates to entrepreneurial intentions
Breugst, Domurath, Patzelt, & Klaukien (2012)	124 employees	Quantitative	passion for inventing, founding and developing	Germany	Employees' perceptions of their supervisors' entrepreneurial passion for inventing, founding and developing differentially impact commitment.
Campos (2016)	244 people	Quantitative	passion for inventing	Mexico	Entrepreneurial passion drives creativity and creativity partially mediates the relationship between entrepreneurial passion and entrepreneurial alertness.
Cardon & Kirk (2015)	129 entrepreneurs	Quantitative	passion for inventing passion for founding	United States	The relationship between self-efficacy and persistence is explained by entrepreneurial passion for inventing and founding.
Chen et al. (2009)	126 people	Qualitative	Perceived passion	United States	Passion not directly related to impacted decision.
Collewaert et al. (2016)	112 participants	Quantitative	Passion for Founding	Belgian	Entrepreneurial passion for founding reduces as the entrepreneur's venture ideas changes, however, positive feedback lessen the effect.

Dalborg & Wincent (2015)	103 respondents	Quantitative	founder passion	Sweden	Opportunity attraction does not stir founder's passion.
Davis, Hmieleski, Webb, & Coombs (2017)	102 participants	Quantitative	perceived entrepreneurial passion	United States	Crowdfunding performance is driven by perceived product creativity both directly and indirectly, through perceived entrepreneurial passion.
De Clercq, Honig, & Martin (2013)	946 university students	Quantitative	passion for work	Canada	Passion for work strengthens the relationships of feasibility and desirability considerations with entrepreneurial intention.
de Mol et al. (2019)	107 new venture teams	Quantitative	inventing, developing and founding	Netherlands	Passion diversity, mainly intensity separation, is negatively related to performance.
de Mol, Ho, & Pollack (2016)	326 individuals	Quantitative	harmonious and obsessive	United States	Job fit perceptions are positively associated with harmonious passion, which has a negative impact on burnout. Obsessive passion could lead to burnout.
Drnovsek, Cardon, & Patel (2016)	122 high technology firms	Quantitative	Passion for developing	United States	Passion for developing directly affect venture growth, as well as an indirect effect through goal commitment.
Gielnik et al. (2015)	54 entrepreneurs	Quantitative	Passion for inventing Passion for founding	Germany	Entrepreneurial effort is associated with entrepreneurial passion, and this relationship is mediated by new venture progress

Gielnik, Uy, Funken, & Bischoff (2017)	227 participants	Quantitative	Harmonious passion	Kenya	Entrepreneurship education and training affect entrepreneurial passion and self-efficacy
Ho & Pollack (2014)	360	Quantitative	harmonious and obsessive passion	United States	Harmonious passion in entrepreneurs results in higher out-degree centrality in their networking group, while obsessive leads to lower in-degree centrality.
Huyghe, Knockaert, & Obschonka (2016)	2308 researchers	Quantitative	Passion for entrepreneurial inventing Obsessive scientific passion	Sweden, Spain, Slovenia, Germany and Belgium	Obsessive scientific passion positively impacts researchers' intentions to create a spin-off, and negatively related to their propensity to establish a start-up.
Ko, Liu, Wan Yusoff, & Che Mat (2019)	229 Community Interest Companies	Quantitative	social entrepreneurial passion	United Kingdom	Social entrepreneurial passion affects social innovation performance through creative solution generation capacity (CSGC).
Ma, Gu, & Liu (2017)	154 new ventures	Quantitative	inventing passion, founding passion, and developing passion	China	Entrepreneurial passion affects new venture performance directly and indirectly through organizational innovation.
Mueller, Wolfe, & Syed (2017)	204 entrepreneurs	Quantitative	developer passion	United States	Passion for developing directly affects grit through both locomotion and assessment.

Murnieks, Cardon, & Haynie (2018)	166 entrepreneurs	Quantitative	harmonious versus obsessive entrepreneurial passion	United States	Entrepreneurial identity centrality propelled harmonious entrepreneurial passion. Whereas obsessive entrepreneurial passion is driven by affective interpersonal commitment.
Murnieks et al. (2016)	53 investors	Mixed	obsessive passion	United States	Angel's investment decision is affected by entrepreneurs' passion and tenacity.
Murnieks, Mosakowski, & Cardon (2014)	221 entrepreneurs	Quantitative	harmonious passion	United States	The level of passion in entrepreneurs is dependent on entrepreneurial identity centrality, and that passion is affected by individual entrepreneurial behaviour and entrepreneurial self-efficacy.
Santos & Cardon (2019)	73 new venture teams	Quantitative	team entrepreneurial passion	Portugal United States	Team entrepreneurial passion for inventing and developing are positively associated with team performance.
Stenholm & Renko (2016)	2489 entrepreneurs	Quantitative	inventing, founding, and developing	Finland	Entrepreneurial passion for inventing and developing indirectly affects entrepreneurial survival through bricolage.
Strese, Keller, Flatten, & Brettel (2016)	388 small and medium-sized enterprises (SMEs)	Quantitative	passion for inventing	Germany	Passion for inventing affects radical innovation.

Stroe, Parida, & Wincent (2018)	50 nascent entrepreneurs	Quantitative	harmonious passion obsessive passion	Germany	Combination of entrepreneurial passion, self-efficacy, and risk perception determines the use of a causal and an effectual logic.
Stroe, Sirén, Shepherd, & Wincent (2019)	88 entrepreneurs	Quantitative	harmonious passion obsessive passion	Germany	Dispositional fear of failure is regulated by the dualistic mode of passion.
Thorgren & Wincent (2015)	704	Quantitative	harmonious passion and obsessive passion	Sweden	Obsessive passion component is commonly found among habitual entrepreneurs while the harmonious dimension of passion is particularly evidenced among novice, serial and portfolio entrepreneurs.
Warnick, Murnieks, McMullen, & Brooks (2018)	31 angel investors and 31 venture capitalists	Quantitative	product passion entrepreneurial passion	United States	Product passion and openness to feedback attract angel investors and venture capitalists.

Interestingly, Cardon (2008) claims that entrepreneurial passion is contagious and that entrepreneurs can transfer their passion to others. “Because obtaining essential financial and human resources often involves persuading others of the value or potential of a new venture, positive affect may contribute to entrepreneurs’ success in their effort to secure such resources” (Baron, 2008, p. 333). Some studies have begun to examine the role of entrepreneurial passion in attracting investors (Chen et al., 2009; Davis et al., 2017; Mitteness et al., 2012; Murnieks et al., 2016; Warnick et al., 2018). For instance, Cardon et al. (2016) noted that investors’ overall perception of entrepreneurial passion (which is assessed by their enthusiasm, preparedness and commitment) influence their investment decisions.

A paucity of research examines the role of entrepreneurial passion in venture performance. Although over the last few years researchers’ attentions are being drawn to it (Adomako et al., 2016; de Mol et al., 2019; Iyortsuun et al., 2019; Ko et al., 2019; Ma et al., 2017; Mueller, Wolfe, & Syed, 2017; Santos & Cardon, 2019), research on this is still in its early stages (Collewaert et al., 2016). Entrepreneurs set challenging goals (Baron et al., 2016) which are sometimes evaluated with performance indices like growth in sales, number of employees and profit. Achieving these goals in a dynamic environment is not without obstacles, however, passionate entrepreneurs have endured these, succeeding despite these hurdles (Mueller et al., 2017).

The intense positive emotion emanating from entrepreneurial passion was suggested as a critical player in building capacity and capability that enhances effective responses to such dynamic environments (Baron, 2008). For example, Baum & Locke (2004) surveyed the CEO and some of their associates in a particular industry for a 5-years in a longitudinal study. They found that passion is indirectly related to venture growth through communicated vision, goals and self-efficacy. In a similar study, Drnovsek et al. (2016) found that entrepreneurial passion for developing positively impact venture growth and the relationship is mediated by goal commitment. However, for this study, the indirect path through goal challenge was not significant. Fang & An (2017) examined the effect of entrepreneurial passion on both financial and non-financial performance and found both relationships to be significant. While the studies mentioned above have tried to explain the relationship through individual-level variables. Ma et al. (2017) examine the role of organisational innovation in the relationship between entrepreneurs’ passion and new venture performance. They found that as previously explained

by some individual-level variables, firm-level variables like organisational innovation could also be responsible for this link.

Looking beyond individual entrepreneurial passion, Santos & Cardon (2019) recently studied team entrepreneurial passion and team performance. Interestingly, they noted that team entrepreneurial passion (TEP) for inventing and developing impact team performance positively. As researchers are now looking at entrepreneurial passion at the firm and team levels, this calls attention to the fact that entrepreneurial passion plays a vital role in entrepreneurial performance at individual-level, firm-level and team level as well.

Interestingly scholars are moving the frontier of knowledge in entrepreneurship by paying attention to the impact of entrepreneurial passion on venture performance. Besides, the evidence reviewed here seems to suggest a pertinent role for entrepreneurial passion. Notwithstanding, understanding of the interplay of positive emotion and motivation in the formation of growth intention is imperative, as noted by Simon (1967), actual human behaviour is influence by motive and emotion. This study is particularly interested in examining this interplay of entrepreneurial passion and motivation in the formation of growth intention

2.7 Entrepreneurial Decision-Making

Entrepreneurial decision-making is the core of entrepreneurial action. For over two decades, entrepreneurship researchers have made human agent the central focus of the entrepreneurial process (Ucbasaran, 2008). Indeed, the entrepreneurial process is laden with uncertainty (Leyden & Link, 2015) and entrepreneurs are saddled with the responsibilities of making decisions in the face of various uncertainties (Packard et al., 2017). Consequently, scholars have spent a considerable number of years studying how, why, where and when entrepreneurs make those decisions (Camuffo et al., 2019; Leyden & Link, 2015; McVea, 2009; Shepherd et al., 2015).

A great deal of previous research into entrepreneurial decision-making has focused on areas such as entry decisions (Engel et al., 2017; Reymen et al., 2015), exit decisions (DeTienne, 2010; Hsu et al., 2016) as well as opportunity assessment and exploitation decisions (Maine et al., 2014; Wood & Williams, 2014). In recent time, growth decision has caught the

interest of entrepreneurship scholars. Wright & Stigliani (2013: 5) advocated for investigation of growth decision as the "first and foremost strategic decision all entrepreneurs must make". Although some of the earliest attempts to study growth focused on the growth rate, experts suggest that to advance scholarship in the field, attention should be on the mode of growth (McKelvie & Wiklund, 2010). A proper understanding of the mode of growth will help the entrepreneurial decision-making concerning the type of growth (organic, acquisitive, or hybrid) suitable for firms at various stages of the entrepreneurial process.

Another aspect of entrepreneurship research closely linked with decision-making is opportunity. Entrepreneurship "involves the study of sources of opportunities; the processes of discovery, evaluation, and exploitation of opportunities; and the set of individuals who discover, evaluate, and exploit them" (Shane & Venkataraman, 2000, p. 218). Beyond identification of opportunities, entrepreneurs evaluate and decide whether to exploit opportunities (Keh et al., 2002; Wood & Williams, 2014). Because entrepreneurs differ in their human capital, this has been found to affect their decision-making (Shepherd et al., 2015). For example, Westhead et al. (2005a) examined the heterogeneity in the behaviours of entrepreneurs concerning opportunities. They found that novice, serial, and portfolio entrepreneurs differ in their opportunity identification activities, the number of opportunities identified as well as sources of information for discovery and evaluation. These differences are attributed to experience, and cognitive mindsets resulting from their training, formal education and skills which enhance their information processing (Shane, 2000; Westhead et al., 2005b).

Entrepreneurial thinking has been highlighted as a primary determinant of entrepreneurs' decision-making (Mitchell, Busenitz, et al., 2002). Over the past decade, researchers have extensively studied information processing and entrepreneurial cognition, specifically in the area of cognition that relate to entrepreneurial decision making (Armstrong & Hird, 2009; Arora et al., 2013; Baron, 2004; Sadler-Smith, 2004). Entrepreneurs deplore structured mental models to process information in their "assessments, judgements or decisions involving opportunity evaluation, venture creation, and growth" (Mitchell et al., 2002, p. 97). As the notion that entrepreneurs utilise expert scripts or unique knowledge structure to process information gain prominence, research on entrepreneurial expertise has surged dramatically.

Of course, entrepreneurs are action-oriented, willing to make things happen even with constraints, leading to a search for mental frameworks and cognitive preferences that could enhance their decision-making (Baron, 2004). Interestingly, for many years, heuristic-based logic has been found to explain how entrepreneurs think and make critical decisions (Baron & Ward, 2004; Grégoire et al., 2011). For example, Busenitz & Barney (1997) claim that small business owners tend to use more heuristic-based logic in strategic decision than managers of large established corporations. Consequently, development in entrepreneurship theory has seen domain-specific heuristic principles such as effectuation gain popularity.

2.7.1 Effectuation: The Logic of Entrepreneurial Expertise

Over a decade ago, our understanding of entrepreneurial principles witnessed a dynamic shift (Perry et al., 2012) with the introduction of effectuation logic. Effectuation presents a more pragmatic view of the entrepreneurial process. Contrary to the conventional understanding of entrepreneurship from the trait perspective, effectuation likened the entrepreneurial process to the development of expertise (Dew et al., 2015; Sarasvathy, 2001). As Sarasvathy (2008: xvii) writes: "Causal logic provides useful decision criteria to achieve given goals subject to environmental selection in the face of an uncertain future. Effectual logic provides useful design principles for transforming extant environments into new futures in the face of ambiguous goals." Effectual logic promotes the co-creation of non-existing market in alliance with relevant stakeholders. Effectuators use their intellectual capital, human capital and social capital (what they know, who they are, and whom they know) as a set of means to kick start a venture without any predetermined goal, focusing on possible effects that can be created with their means (Collins, 2013; Read & Sarasvathy, 2005; Sarasvathy, 2001, 2008). In the process of creating a new firm or market (Storbacka et al., 2016), effectual entrepreneurs make strategic decisions based on the resources they can afford to lose, experiment with contingencies and form alliance with available interested stakeholders (Sarasvathy 2001; 2008). Effectuation has been applauded as a knowledge structure for navigating context with uncertainty such as venture initiations (Dew et al., 2008; Sarasvathy & Dew, 2005). Five cardinal principles mark the differences between causal and effectual reasoning. They are presented in Table 2.4.

In the subsequent sub-sections, each of the five effectuation principles is discussed further as the role of effectual logic in the formation of growth intention is examined in this study. Reviewing the literature on growth, effectuation principles are found to provide solutions to some of the substantial barriers to growth. For example, one barrier that resonated across economic status is limited access to funding (Beck & Demirguc-Kunt, 2006). With the bird-in-hand principle, entrepreneurs can make do with their means (what they know, who they are, and whom they know). Barriers, such as foreign market knowledge and entry challenge (Coad & Tamvada, 2012), were also solved by some effectuation principles. Forming a strategic partnership with likeminded and self-selected stakeholders (Galkina & Chetty, 2015) along with networking (Karami et al., 2019) are found to be powerful resources in SME internationalisation. In addition to a recent review of existing literature on entrepreneurial motivation for venture growth (Murnieks et al., 2019), other constructs have explained the reason for this relationship. However, the role of effectual logic has not been examined.

Table 2.4: Differences Between Effectual and Causal Logics

S/N	Effectuation	Causation
1	Means-driven (the bird-in-hand principle)	Goals-driven approach
2	Affordable loss (risk a little, fail cheap)	Expected returns
3	Acknowledging the unexpected (the lemonade principle)	Overcoming the unexpected
4	Alliances and pre-commitments (the crazy quilt principle)	Competitive market analysis
5	Non-predictive (the pilot-in-the-plane principle)	Predictive control

Source: Sarasvathy (2008)

Means-driven (the bird-in-hand principle)

This principle originated from the notion that a bird-in-hand is worth more than a thousand in the bush. The emphasis of this tenet is that entrepreneurs can create an effect from the resources already within their reach. According to Sarasvathy (2001), every intending entrepreneurs have these three kinds of means ("who I Am"- Identity, "what I know" - Knowledge, and "whom I know" - network).

Who I Am (Identity)

Scholars have recognised the importance of the founder's identity in motivating entrepreneurship (York et al., 2016). Most of the early attempts to understand entrepreneurial behaviour refers to traits and characteristics of entrepreneurs (Ripsas, 1998; Robinson et al., 1991), although recent development in the field has shown that there is more to it (Armstrong et al., 2012). The identity of an entrepreneur is embedded in their characteristics, traits and abilities, and these are formed through interactions with society (Sarasvathy, 2008). Entrepreneurs are believed to act or behave in a manner that is relevant to their identity (Gruber & MacMillan, 2017).

Several authors have considered different entrepreneurial phenomena in relation to the founder's identity (Farmer et al., 2011; Fauchart & Gruber, 2011; Murnieks et al., 2018; Powell et al., 2014). For instance, entrepreneurial passion which has been linked to entrepreneurial behaviour, is proposed to rise or fall in connection with identity centrality (Murnieks et al., 2014). "Founders' identities adjust as they experience periods of pragmatic deference, contestation and domination by an in-group that moves increasingly towards identity homophily" (Baker et al., 2017, p. 2381). "Who I am" can be a ladder that connects the aspiring entrepreneur to the point of "who I want to be."

What I Know (Knowledge)

The second mean of the entrepreneur is their knowledge. Ulrich (1997) noted that intellectual capital, such as experience and knowledge has a positive impact on organisational performance. Specifically, knowledge, whether formal or informal, has been linked to entrepreneurial success (Alvarez & Busenitz, 2001). Jiménez et al. (2015) claim that education equipped and enhanced entrepreneurs' cognitive skills used in the evaluation of entrepreneurial opportunities. Entrepreneur's ability to recognise opportunity is dependent on the level of information that is already possessed (Shane, 2000). Knowledge is pivotal to innovation and creativity, which are core to entrepreneurship (Caiazza et al., 2019; Qian, 2018). The identity of the entrepreneur depends on and is transformed by their knowledge (Sarasvathy, 2008). Entrepreneurs generally know what their growth dispositions are and the area of business that is to be developed although they are flexible about it.

Whom I Know (Network)

Whom I know denotes the entrepreneur's social capital during venture initiation and development (Sarasvathy, 2008). There is a large volume of published studies describing the role of social and business network in entrepreneurship (Chetty et al., 2015; Ciszewska-Mlinaric et al., 2016; Engel et al., 2017; Fernández-Pérez et al., 2016; Galkina & Chetty, 2015; Kalinic et al., 2014; Laine & Galkina, 2017; Vasilchenko & Morrish, 2011). Indeed, networks are vital to the entrepreneurial process. Dubini & Aldrich (1991) emphasised that the entrepreneur's personal and extended networks (e.g. friends, family, investors, suppliers, creditors, business partners, and trade associations) could be helpful in the pursuit of opportunities outside the reach of the entrepreneur's resources. According to Klyver et al. (2008), the entrepreneur's networks can provide (among other things) information, access to skills, access to finance, knowledge and social legitimacy as well as reputation and credibility. These resources are essential at every stage of the entrepreneurial process. For example, Jenssen & Koenig (2002) found that the strength of network ties will determine what kind of resources the entrepreneur gets. Their finding suggests that strong ties are important channels for crucial information while weak ties provide access to funding at the start-up stage. In the same vein, Ostgaard & Birley (1996) note that access to finance is not only useful for venture initiation but also the growth and development of the firm. Thus, their findings confirmed a positive relationship between networks and venture growth. The intention to grow might be affected by the activities and disposition of their network as well. For instance, if people within their network are requesting for services or goods which they do not offer presently, they might take up the challenge and aspire to grow their business in that area.

Affordable Loss (Risk a little, fail cheap)

The principle of affordable loss places emphasis on what the entrepreneur can afford and willing to lose rather than the causal approach of potential return. "Affordable loss involves decision-makers estimating what they might be able to put at risk and determining what they are willing to lose in order to follow a course of action" (Dew et al., 2009, p. 105). This principle is tied to the concept of opportunity cost in economics. Scholars claim that when the opportunity cost of an action is low, entrepreneurs tend to engage in entrepreneurial activities (Amit et al., 1995).

Further, they note that those earning less than the average salaries in bigger firms, quickly find it attractive to leave their job for a business start-up. Surprisingly, this is consistent with a proposition from Dew et al. (2009) which states:

> "Weakly-coupled forms of payment will raise a potential entrepreneur's level of affordable loss and, therefore, increase both the likelihood of taking the plunge and the ability to take it" p. 116.

When an employee is earning low, it is easier to leave that paid job because the potential entrepreneur regards leaving that job with its income as an affordable loss.

The loss aversion literature suggests that people are more concerned about seeing their wealth reducing than when they make gains (Thaler et al., 1997). Loss aversion from prospect theory provides another perspective that could also help to illuminate the rationale behind the principle of affordable loss. This can be illustrated with the findings from George et al. (2016) in rural Kenya with 1,049 households that social structure loss resulting from shocks can trigger a behavioural search for reasonable gain, which could eventually lead to the initiation of a new business. As stressed by Sarasvathy (2014), the two components of affordable loss are ability and willingness, which are connected to the concept of loss aversion from prospect theory (Martina, 2019). Martina (2019) found that affordable loss is at the interface of ability and willingness with loss aversion acting as the mechanism that activates change from abilities to willingness.

Experts have conceptualised this construct in two opposite states. Some have conceptualised it as a reflective construct, making it dependent on other effectuation constructs (Fisher, 2012; Garonne & Davidsson, 2010; Perry et al., 2012). Whereas, others have conceptualised it as a formative construct, seeing it as independent of the other sub-dimensions (Brettel et al., 2012; Chandler et al., 2011; Reymen et al., 2017).

A considerable amount of empirical works have been published on affordable loss. Some of these studies have measured affordable loss as sub-dimension of effectual decision-making. For example, Brettel et al. (2012) found that affordable loss is positively related to R&D output or efficiency when projects are executed with a high level of innovation. The relationship between affordable loss and venture performance are mixed, ranging widely in its

directions regarding the relationship. Smolka et al. (2018) surveyed close to 1,500 entrepreneurs from 25 countries and found that affordable loss exerts a negative influence on venture performance.

On the contrary, others found a significant positive relationship between affordable loss and venture performance (Cai et al., 2016; Roach et al., 2016). In their meta-analysis, Read et al. (2009) (having studied 94 variables from 48 articles) report a strong relationship between all effectuation sub-constructs and firm performance except affordable loss which may have resulted from its small sample size. In another study, Deligianni et al. (2017) report that except for affordable loss, all other effectuation sub-dimension have a positive interaction effect on the relationship between product diversification and performance. In view of all that has been mentioned so far, one may suppose that there is an urgent need for a renewed operationalisation and further conceptual advancement of affordable loss (Martina, 2019; Werhahn et al., 2015).

Lemonade Principle (Acknowledging the unexpected)

Rather than wasting valuable time thinking on how to overcome unexpected events, they should be considered them as opportunities (Sarasvathy 2001; 2008). Entrepreneurs take advantage of surprise occurrences by seeing them as a window of opportunity. The principle drew its inspiration from the proverbial saying "If life throws you lemons, make lemonade" Figuratively, it means, make the most out of the unexpected. "The lemonade principle is at the heart of entrepreneurial expertise – the ability to turn the unexpected into the valuable and the profitable" (Sarasvathy, 2008, p. 90).

This principle encourages the entrepreneur to focus on the situation at hand rather than thinking about how to overcome unexpected occurrences in the future (Sarasvathy, 2008). Venture initiation process is complex and filled with uncertainty (Packard et al., 2017). The key to successfully launching a business venture is flexibility and adapting to events as they occur (Fisher, 2012). By not holding tightly to pre-set goals, the entrepreneur can use his/her set of means to create something from the evolving opportunities (Duening et al., 2012). Some scholars argue that entrepreneurs primary concern is raising fund (Cowling et al., 2012; Fraser et al., 2015) to achieve their pre-determined goals. Effectual entrepreneurs prioritise the

resources they have and tailor their business in accordance with means readily available to them.

Crazy Quilt Principle (Alliances and pre-commitments)

Contrary to the conventional way of detailed competitive analyses, the effectual entrepreneur seeks for ways to form a strategic alliance with stakeholders, thereby reducing or eliminating the uncertainty at the point of entry (Sarasvathy, 2008). These stakeholders are seen as co-creators of value (Brodie et al., 2019). Because effectuators have no predetermined goals, they are able to partner with willing stakeholders within their network (Sarasvathy et al., 2014). By forming partnerships with stakeholders such as suppliers, customers or investors, their risk is reduced by sharing it with others that are part of effectual partnerships. Notwithstanding, they also share success and the benefit with them (Chandler et al., 2011). They show their commitment by bringing their capabilities, skills, resources and experience to the business resulting in access to low-cost resources and new means (Sarasvathy 2008). Effectual entrepreneurs manage contingencies and opportunities with information gathered from stakeholders (Brettel et al. 2012). Knowing fully well that the environment is dynamic with unexpected contingencies, stakeholders prepare for the worst by investing only resources that they can afford to lose (Read et al., 2016). Having the intention to grow their venture, entrepreneurs can seek to pre-commit people within their network by asking about their willingness to patronise them in the areas of their intended expansion.

Pilot-in-the-plane Principle (Non-predictive)

The doctrinal emphasis of the non-predictive focuses on the controllable parts of an uncertain future (Sarasvathy 2008). A causal model tries to predict the future by obtaining and analysing market information. Effectuation, on the other hand, promotes the concept of control. As Sarasvathy (2008: 91) points out: "to the extent that entrepreneurs can control the future, the future does not need to be predicted". Concentrating on controlling the future by embracing effectual logic that refuses to centre on prediction is a sure way to mitigate uncertainty. This principle, like some others, also focus on the means of the entrepreneurs as decisions are being made, rather than looking to analyse market trends (Wiltbank et al., 2009). Another key feature of this principle is flexibility. For example, in an inductive study of eight New Zealand firm, Hansen & Hamilton (2011) highlighted “business culture of innovation and flexibility” as one

of the four factors that differentiate small firm growers and non-growers. An effectual entrepreneur can exercise control in a dynamic environment by adapting their resources to the current reality, just like the pilot in the plane can better manage turbulence than the pre-programmed auto-pilot.

2.7.2 Measuring Effectuation

Although a number of empirical studies have emerged since Sarasvathy (2001), no validated measurement instruments were developed until a decade later. From its inception, scholars see Sarasvathy's (2001) work as a paradigm shift in our understanding of the entrepreneurship phenomenon. For several years, effectuation research was in the nascent stage, characterised by "open-ended inquiry", collecting "qualitative, open-ended data" such as "interviews; observations; obtaining documents or other material from field sites" which "need to be interpreted for meaning" (Edmondson & McManus, 2007, p. 1160). At this stage, there was no way some of the propositions of effectuation could be tested. Chandler et al. (2011) presented the first validated instrument for effectuation and effectuation, which turns out to be the most used. Thereafter, Brettel et al. (2012) added another instrument suitable for another level of analysis other than the individual, namely, the firm level. These advancements quickly translated effectuation research from the nascent to intermediate phase, with scholars proposing relationships between this new phenomenon and established constructs as well as examining and exploring both quantitative and qualitative data (Perry et al., 2012).

From Table 2.5, effectuation has been studied in different contexts of entrepreneurship research such as technology entrepreneurs, firm development stage, as well as foreign market entry. Despite the progress made so far, Arend et al. (2015) were left bewildered by measurement difficulties facing effectuation research. For instance, Alsos et al. (2014) objected to the most used instrument designed by Chandler et al. (2011). They noted that the measure lacks consistency in what was captured as the dimension of effectuation compared to the theoretical foundation laid by Sarasvathy (2001).

However, the contexts are different; Chandler et al. (2011) adopted the behavioural approach using survey-based methodologies, while Sarasvathy's (2001) case was a decision-making process with a think-aloud protocol. Using Chandler et al. (2011) items for a case study,

Fisher (2012) found that affordable loss, experimentation and flexibility were factors that distinctly separate effectuation and causation processes. With the behavioural approach, there seems to be an overlap between causation and effectuation process when considering the focus on means and the use of pre-commitments.

From literature, both effectuation (Sarasvathy, 2011) and causation (Kale et al., 2000; Shane, 2000) principles emphasised strategic alliances as well as pre-existing knowledge. Brettel et al. (2012) followed an approach that tried to contrast effectuation with causation, however, there was a failure to make provision for the overlap and similarities. A recent review by McKelvie et al. (2019), acknowledges that some of these difficulties originated from the unclear delineation of essential effectuation tenets. Four vital challenges are identified by these authors, viz: (1) effectuation as a variance-based or process-based theory, (2) designed and measured as behaviours or decision-making logic, (3) focal unit of analysis, and (4) the role of time. If decisions were made concerning the issues mentioned above, researchers are clear about what is to be measured and how it should be measured. For this study, effectuation is delineated as decision-making processes with different core tenets. Using survey as the primary data collection method, the instrument examines the observable behaviour of entrepreneurs at a single point in time.

2.7.3 Effectuation and Venture Performance

Over a decade ago, Read et al. (2009) conducted a meta-analysis to connect some of the principles of effectuation with venture performance. Because of the stage of effectuation research at that time, none of the effectual principle constructs was direct measures of any of the tenets of effectuation. More recently, some studies have examined venture performance with respect to effectuation designed measures (An et al., 2019; Brettel et al., 2012; Cai et 2016; Ciszewska-Mlinaric et al., 2016; Matalamäki et al., 2017).

Originally launched to reduce the uncertainties in the start-up process, Sarasvathy's effectuation logic has evolved, having been applied to the internationalisation process (Chetty et al., 2015; Galkina & Chetty, 2015; Kalinic et al., 2014; Karami et al., 2019; Sarasvathy et al., 2014), disaster recovery (Akinboye & Morrish, 2017; Nelson & Lima, 2019) and venture performance (Cai et al., 2016; Read et al., 2009; Roach et al., 2016).

Table 2.5: Summary of Selected Empirical Studies on Effectuation

Author(s)	Location	Context	Samples	Method	Key findings
Agogué, Lundqvist, & Middleton (2015)	Sweden	Technology entrepreneurs	13 teams	Mixed	Mindful deviation through combinations of causation and effectuation offer deeper insight into early-stage technology entrepreneurship.
An, Rüling, Zheng, & Zhang (2019)	China	Firm development stage	305 ventures	Quantitative	There are complementary role and relationship between decision-making logics and bricolage.
Appelhoff, Mauer, Collewaert, & Brettel (2016)	Germany	Entrepreneur-investor relationship	141 ventures	Quantitative	Combination of effectual and causal principles reduce conflicts among the founding team
Berends, Jelinek, Reymen, & Stultiens (2014)	Netherlands	Product Innovation Processes	5 small ventures	Mixed	Product innovation becomes resource-driven, stepwise, and open-ended when using effectual logic while causal logic is used in later stages to plan activities for the set objectives as well as invest resources to attain the objectives.
Brettel, Mauer, Engelen, & Kupper (2012)	Germany	R&D project performance	400 projects.	Mixed	Causal "goals-driven" is significantly associated with R&D output and efficiency while preference for effectual "affordable loss" is significantly related to R&D efficiency when innovativeness is high and preference for causal "expected returns" and "partnerships" is significantly associated with R&D efficiency when innovativeness is low and low respectively.
Cai, Guo, Fei, & Liu (2016)	China	New Venture Performance	266 new ventures	Quantitative	Effectuation affects new venture performance positively, and this

					relationship is mediated by exploratory learning.
Chetty, Ojala, & Leppäaho (2015)	Finland and New Zealand	Foreign market entry in the software industry	10 firms	Qualitative	Entrepreneurs combine effectuation and causation logics as substitutes during foreign market entry and selection in their decision-making.
Ciszewska-Mlinaric, Obloj, & Wasowska (2016)	Poland	Early stage of growth and internationalisation	1 company	Qualitative	The combination of decision-making logics at the early stage of company growth and internationalisation is necessary.
Deligianni, Voudouris, & Lioukas (2017)	Greece	Product Diversification and Performance in New Ventures	129 new ventures	Quantitative	Diversification-performance relationship is amplified by effectuation processes except affordable loss.
Dew, Read, Sarasvathy, & Wiltbank (2009)	United States	Entrepreneurial decision-making in new venture creation	27 expert entrepreneurs and 37MBA students	Qualitative	Novices and experts differ in many aspects of entrepreneurial expertise
Dew, Read, Sarasvathy, & Wiltbank (2015)	United States	Entrepreneurial expertise	412 founders	Quantitative	Entrepreneurial expertise significantly improves decision-making in the situational use of control strategies
Dutta, Gwebu, & Wang (2015)	United States	Emerging technology industries	164 students	Quantitative	Both causation and effectuation principles play an important role in the formation of entrepreneurial intentions in emerging technology industries

	Netherlands	Novices' use of expert decision-logic	93 business students	Quantitative	Novice entrepreneurs with high entrepreneurial self-efficacy show a preference for the use of effectuation under uncertainty.
Engel, Dimitrova, Khapova, & Elfring (2014)					
	Germany	Corporate venture success	128 corporate ventures	Quantitative	Both causation and effectuation result in business model innovation (BMI) in situations of moderate industry growth. Effectuation is more effective in high industry growth settings, while causation is more effective in low situations.
Futterer, Schmidt, & Heidenreich (2017)					
	Finland	Foreign market entry	7 firms	Qualitative	Entrepreneurs network effectually to overcome the challenge of foreign market entry.
Galkina & Chetty (2015)					
	Finland	Coopetition	3 companies	Qualitative	Coopetitive interactions use a combination of effectual and causal logics, and the interplay is dependent on stages of the coopetition process and on managerial levels.
Galkina & Lundgren-Henriksson (2017)					
	China	New internet venture growth	180 new internet ventures	Quantitative	Entrepreneurial cognitive logics are positively associated with new internet venture growth.
Guo, Cai, & Zhang (2016)					
	Switzerland	Strategic decision-making	10 SMEs	Qualitative	The choice of strategic decision approach is not dependent on company size but rather on context.
Hauser, Eggers, & Güldenberg (2019)					
	Italy	Internationalization process	5 SMEs	Qualitative	Interplay between causal and effectual logics allows firms to rapidly increase the level of commitment in the foreign market.
Kalinic, Sarasvathy, & Forza (2014)					

Laine & Galkina (2017)	Russia	Institutional uncertainty	4 firms	Qualitative	Firms concurrently use both causation and effectuation in their decision making, however, under an increase of institutional uncertainty effectuation is dominant.
Laskovaia, Shirokova, & Morris (2017)	24 countries	New venture performance	3411 new ventures	Quantitative	Venture cognitive logics affect new venture performance and mediates the culture-performance relationship.
Maine, Soh, & Dos Santos (2014)	North America	Opportunity creation and recognition in the biotechnology industry	3 founding CEOs	Qualitative	Entrepreneurs respond to their dynamic environment by shifting between effectuation and causation or remaining in one particular as well as adopting both when necessary.
Martina (2019)	Caribbean island of Curacao	Entry-stage of entrepreneurial investment decision	7 firms	Qualitative	Affordable loss reflects ability and willingness, which is connected to the concept of loss aversion from prospect theory.
Nelson & Lima (2019)	Brazil	Response to natural disaster	7 respondents	Qualitative	Cognitive logics play an important role in disaster recovery.
Ortega, García, & Santos (2017)	Spain	New product development in the food industry	4 projects	Qualitative	Effectuation emerging as the dominant logic when dealing with project linked to a greater degree of innovation and uncertainty.
Parida, George, Lahti, & Wincent (2016)	Sweden	Initial venture sale	149 firms	Quantitative	The effectuation and initial sales relationship is enhanced by perceived gains.
Ranabahu & Barrett (2019)	Sri Lanka	Micro-entrepreneurs	24 interviews 295 respondents from survey	Mixed	Combination of effectual and causal logics enable deliberate practice.

Reymen et al. (2015)	Netherlands	Venture creation	385 decision events 9 technology-based ventures.	Mixed	Effectuation and causation logics are combined with entrepreneurs shifting between these logics over time.
Reymen, Berends, Oudehand, & Stultiens (2017)	Netherlands	Business model development in new ventures	4 new technology ventures	Qualitative	Effectual decision-making logic is dominantly when generating a viable value proposition for a specific customer segment.
Roach, Ryman, & Makani (2016)	United States	Innovation and performance in SMEs	169 SMEs	Quantitative	Affordable loss directly affects firm performance. Innovation orientation indirectly affects product/service innovation through means and leverage contingencies.
Smolka, Verheul, Burmeister-Lamp, & Heugens (2018)	25 countries	Venture Performance	1,453 entrepreneurs	Quantitative	Ventures benefit from using effectual and causal logics in cycle.
Szambelan & Jiang (2019)	Germany	Corporate ventures	157 corporations	Quantitative	Effectual control orientation affects innovation performance.
Tryba & Fletcher (2019)	Luxembourg	Entrepreneurial teams	9 entrepreneurial teams in new ventures	Qualitative	Shared entrepreneurial cognition shifts among team members in new ventures

Packard et al. (2017) noted that entrepreneurs face various uncertainties in the decision-making process resulting from access to new information and environmental dynamism. According to Milliken (1987), uncertainty can be classified into three types: effect, response and state.

> "Effect uncertainty is an inability to predict the nature of the effect of a future state of the environment on the organisation. Response uncertainty is an inability to predict the likely consequences of a response choice. State uncertainty, is also referred to as perceived environmental uncertainty (Buchko, 1994, p. 411)" are confronted by entrepreneurs when making growth decision.

Interestingly, scholars also found that environmental uncertainty and growth intention had a significant impact on venture creation success (Gartner & Liao, 2012). Therefore, it is imperative to examine the role of effectual logic in the entrepreneurial decision-making process beyond start-up as other stages in the entrepreneurial process, such as the growth stage are also laden with uncertainty.

A recent systematic literature review concluded that there are preliminary pieces of evidence which confirm a positive relationship between effectuation and venture performance (Grégoire & Cherchem, 2019). In the same vein, Read et al. (2009), note that three effectuation principles (means, partnerships and leverage contingency) have a significant positive impact on venture performance. Some of these empirical studies examined venture performance in relation to other firms (Smolka et al., 2018), while others measured entrepreneurs' perception of their performance in areas like sales, profit and market share growth over time (Cai et al., 2016; Deligianni et al., 2017; Laskovaia et al., 2017). Other studies measured performance indices such as sales growth, profitability and employment growth (Futterer, Schmidt & Heidenreich, 2017; Roach et al., 2016).

There appears to be a clear relationship between effectuation and venture performance from all of the studies mentioned above, no matter how performance was measured. For example, Smolka et al. (2018) surveyed 1,453 respondents from 25 countries and discovered that effectual logic exerts a positive impact on venture performance. Similarly, Laskovaia et al. (2017) found the same when they examined the relationship from a sample of 3411 of new venture created by student entrepreneurs from 24 countries. Specifically, venture growth has also been examined in relation to effectuation. At the early stage of venture growth, Ciszewska-Mlinaric et al. (2016) found that no particular decision-making logic is dominant, but rather

shift from one to another. However, in established businesses seeking growth, Matalamäki et al. (2017) found that effectuation is the main decision-making logic that affects the growth process. In another study, Ostgaard & Birley (1996) claim that personal network, one of the core means in effectuation was found to be helpful during start-up is also positively related to venture growth.

An important theme emerges from the studies discussed so far: Uncertainty appears to be a unifying construct for those factors identified as hindrances or growth barriers. The role of effectuation, which is gaining prominence as the knowledge structure that entrepreneurs use for the reduction of uncertainties, is examined in this study. As noted by Grégoire & Cherchem (2019:8) "the consideration of ... mediating relationships integrating effectuation alongside other variables—offer interesting advances about effectuation's benefits".

In view of all that has been mentioned so far regarding barriers to SME's growth, one may argue that effectual logic could mitigate challenges, especially resource constraint and market access. SMEs look to the international markets as a way to overcome some of the challenges in the domestic markets in pursuit of growth. The evidence presented in this section suggests that effectuation principles will be helpful as SMEs navigate this dynamic terrain. Moreover, even in a recent systematic review by Murnieks et al. (2019) on growth motivation, it is surprising that the mediating role of effectuation has not been examined in the literature. Therefore, for this study, the mediating role of effectual logic is examined in the relationships between growth intention and entrepreneurial motivation and passion.

In all the studies reviewed here, entrepreneurial passion and motivation are recognised as the essential predictors of entrepreneurial intention or behaviour supporting the notion that entrepreneurial action is not only bounded by rationality. The evidence presented here also suggests a pertinent role for effectual logic in the formation of growth intention.

2.8 Chapter summary

Entrepreneurial growth has attracted the attention of scholars for decades, and the need to study growth intention is also becoming popular as policy-makers are particularly interested in ventures with growth potential. Reviewing the literature on entrepreneurial growth, one

barrier that stands out is the unwillingness to grow, which primarily results from the intention to grow or not to grow. Studies on growth intention are necessary to identify businesses with growth disposition. For this reason, this review of literature focuses on factors that drive entrepreneurial growth intention. For decades entrepreneurship scholars have viewed entrepreneurs as rational beings, therefore, most of the existing studies have examined cognitive factors (such as risk-taking, overconfidence, entrepreneurial self-efficacy, opportunities and need for achievement) that drive intentional behaviour. As entrepreneurship research progresses, the role of emotion is gaining prominence, and entrepreneurial passion is leading the way. The review established that entrepreneurial growth intention is formed with the interplay of cognition and emotion. There are also factors that could hinder the formation of growth intention. These factors mirror the uncertainty that is entrenched in the entrepreneurial process.

Interestingly, effectuation has been highlighted in the literature as a better way of dealing with uncertainty. Despite recognising the importance of entrepreneurial growth intention and its drivers, there are gaps in the existing literature that deserve attention. One, the entrepreneur who makes growth decision has been neglected, and attention focused on the entrepreneurial firm. Two, most of the previous works tend to look at the entrepreneur as a rational decision-maker, forgetting that entrepreneurs are not machines but human beings who are also emotional. Three, the role of effectuation, which reduces or eliminates uncertainty in the entrepreneurial process, is visibly missing. Therefore, this study aims to examine the question that follows:

How are the effects of entrepreneurial passion and motivation on growth intention of SMEs influenced by effectuation?

To answer the question mentioned above, this study looks to theory and empirical development for proper conceptualisation and framing of the research model. The next chapter elaborates on the theoretical foundation of the study.

Chapter Three: Research Model and Hypotheses

3.1 Chapter outline

This chapter presents the conceptual framework and hypothesised relationships originating from the research framework of the study. Concepts drawn from both theory and empirical developments are brought together to form the research model. The conceptual framework is rooted in the literature. The research moves from what has been known to answering the research question of the study. In the review of literature, drivers of growth intention were identified, yet little is known about the interplay of motivation and passion in the formation of growth intention. The role of effectuation in these relationships is also still unknown. This chapter therefore, looks at the development of a conceptual model to examine the interplay of entrepreneurial passion and motivation in driving growth intention. The first part states the theoretical underpinning of this study and also looks at the refinement to this theory via entrepreneurship research. The second part focuses on hypotheses development of the different relationships amongst these constructs, particularly the direct relationships of both motivation and passion with growth intention as well as the mediating role of effectuation.

3.2 The Conceptual Framework

Scholars suggest that entrepreneurship is intentional behaviour, and this has led to many trying to understand the phenomenon using intention-based theory (Krueger & Carsrud, 1993; Rai et al., 2017). Over the years entrepreneurship scholars have extensively applied the theory of planned behaviour in order to understand a complex entrepreneurial phenomenon (de Jong, 2013; Fini et al., 2012; Hockerts, 2017; Kautonen et al., 2015, 2013; Schlaegel & Koenig, 2014; Wiklund & Shepherd, 2003). As stated earlier, the focus of this study is to examine factors that influence entrepreneurial growth intention and to understand better the role of effectual logic in the formation of entrepreneurial growth intention. Therefore, this present study uses the theory of planned behaviour (TPB) as a theoretical foundation to understand and achieve the objectives of the study.

The theory of planned behaviour is considered the most popular intention-based theory and explains the role of attitudes in human behaviour (Schwenk & Möser, 2009). Building on the theory of reasoned action, TPB added (See Figure 3.1) "perceived control" as an additional dimension affecting decision-making (Ajzen, 1991). Initially, the theory of reasoned action identified two dimensions affecting an individual's intention to act namely: personal factors like attitude or belief and interpersonal factors such as subjective norm (Ajzen, 1991; Fishbein & Ajzen, 2010). Attitude is defined as "the degree to which a person has a favourable or unfavourable evaluation or appraisal of the behaviour in question" (Ajzen, 1991, p 188) while subjective norms refer to "the perceived social pressure to perform or not to perform the behaviour" (Ajzen, 1991, p 188) and perceived control refers to "the perceived ease or difficulty of performing the behaviour" (Ajzen, 1991, p 188).

The theoretical foundation of this investigation is based on the theory of planned behaviour is for three reasons. One, the focus of this study is the entrepreneur, and the level of analysis is at the individual level. Therefore, there is a need for a theory that models individual behaviour and TPB does. Two, examining the formation of entrepreneurial growth intention makes it necessary to seek for an intention-based model as a guide, and the TPB is also suitable for that purpose. Three, TPB has been used in a wide range of studies in several fields, and entrepreneurship is one of them. Looking at the closely related research in entrepreneurship, many of these studies used TPB. Therefore, this study wishes to make contributions to theory in this regard.

The earliest attempts by scholars to understand the antecedents of entrepreneurial behaviour resulted in adopting the TPB. Krueger & Carsrud (1993) built an intention-based model of entrepreneurship emanating from the theory of planned behaviour to understand and predict new venture initiation mostly seen as intended entrepreneurial behaviour. Similarly, Orser & Hogarth-Scott (2002) applied TPB in entrepreneurial decision-making and claimed that entrepreneurs' growth decision relied on attitudes, subjective norms and perceived control.

Therefore, as posited by TPB (See Figure 3.1), attitudes, subjective norm and PBC are the determinants of intention to act and "that each of these determinants provides the motivational foundation for forming an intention" (Schlaegel & Koenig, 2014, p.298). In the entrepreneurship domain, intention-based models suggest that entrepreneurial behaviours are planned, hence, the entrepreneur must have engaged in some sort of cognitive processing (Krueger, 2000). Bagozzi (1992) observed that the TPB has not revealed the motivational

process and in what way these determinants perform in the formation of intention because the TPB is void of any direct motivational component. Bagozzi further suggests that the motivational factors that lead to the formation of intention are mediated by conative processes and cognitive activities. In the same vein, Bagozzi et al. (2003: 273) claimed that "the motivation-mustering function of the decision process is mediated by the goal and implementation desires". There is a strong theoretical reason justifying that individual ability or means mediates the relationship between attitude and intention.

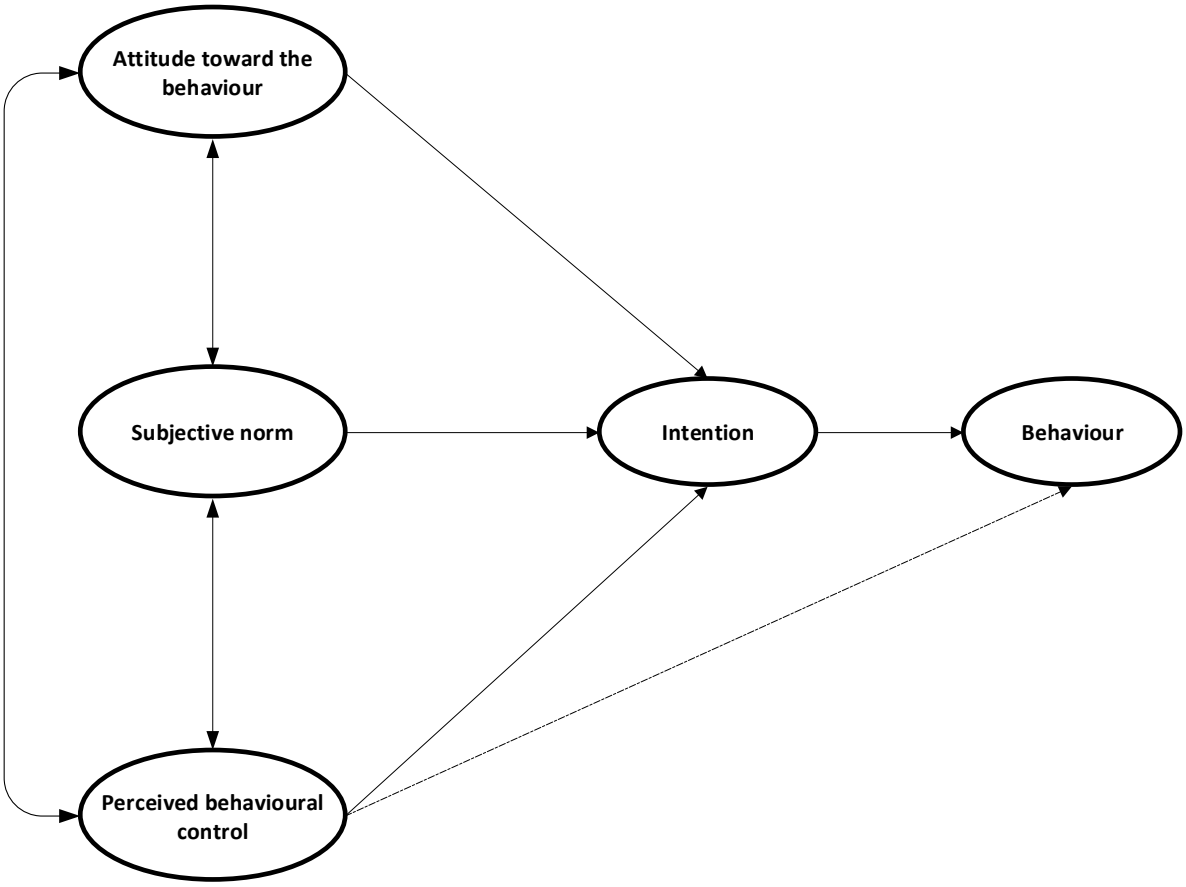

Figure 3.1: Theory of Planned Behaviour

Source: Ajzen (1991)

Considering all of this evidence, this current study examines the relationship between entrepreneurial motivation, passion and growth intention as well as the mediating role of effectual logic which promote entrepreneurs' reliance on means. The earliest framework used in an attempt to investigate growth intention as seen in Figure 3.2 below, also takes into cognisance the role of cognitive structure and process.

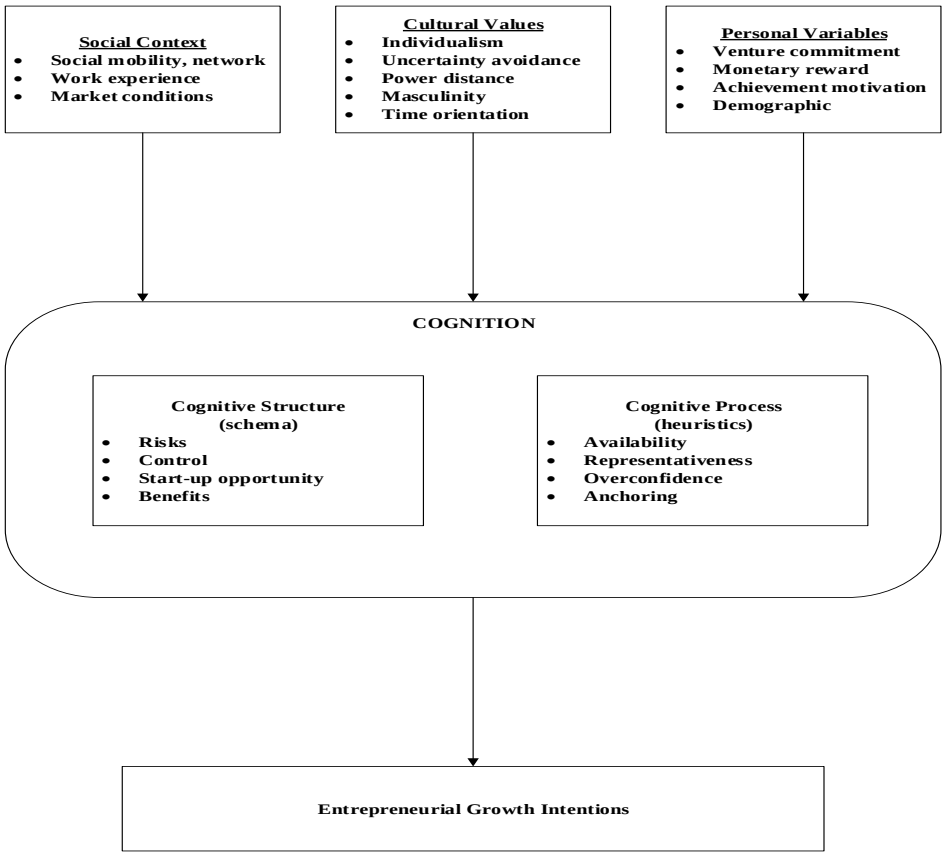

Figure 3.2: Growth Intention Framework

Source: Busenitz & Lau (2001)

For decades scholars have advocated the inclusion of affective elements into the TPB (Sniehotta et al., 2014). For example, the theory has faced criticism for leaving out the influences of the subconscious on behaviour (Sheeran et al., 2013) as well as neglecting the role of emotion in the decision-making process (Conner et al., 2013). The assertion that decision-making is only bounded by rationality has narrowed the exploration of human behaviour. As Simon (1967: 29) notes: "Since in actual human behaviour motive and emotion are major influences on the course of cognitive behaviour, a general theory of thinking and problem solving must incorporate such influences". However, most of the existing framework neglected the role of emotion which has been found to significantly impact judgment and decision-making (George & Dane, 2016; Lerner et al., 2015; Naqvi et al., 2006; Schwarz, 2000). Therefore, this study seeks to incorporate into the existing intention-based model, entrepreneurial emotion, particularly entrepreneurial passion, and this can broaden the body of existing knowledge about entrepreneurial outcome. The conceptual framework of the current study is presented in Figure 3.3.

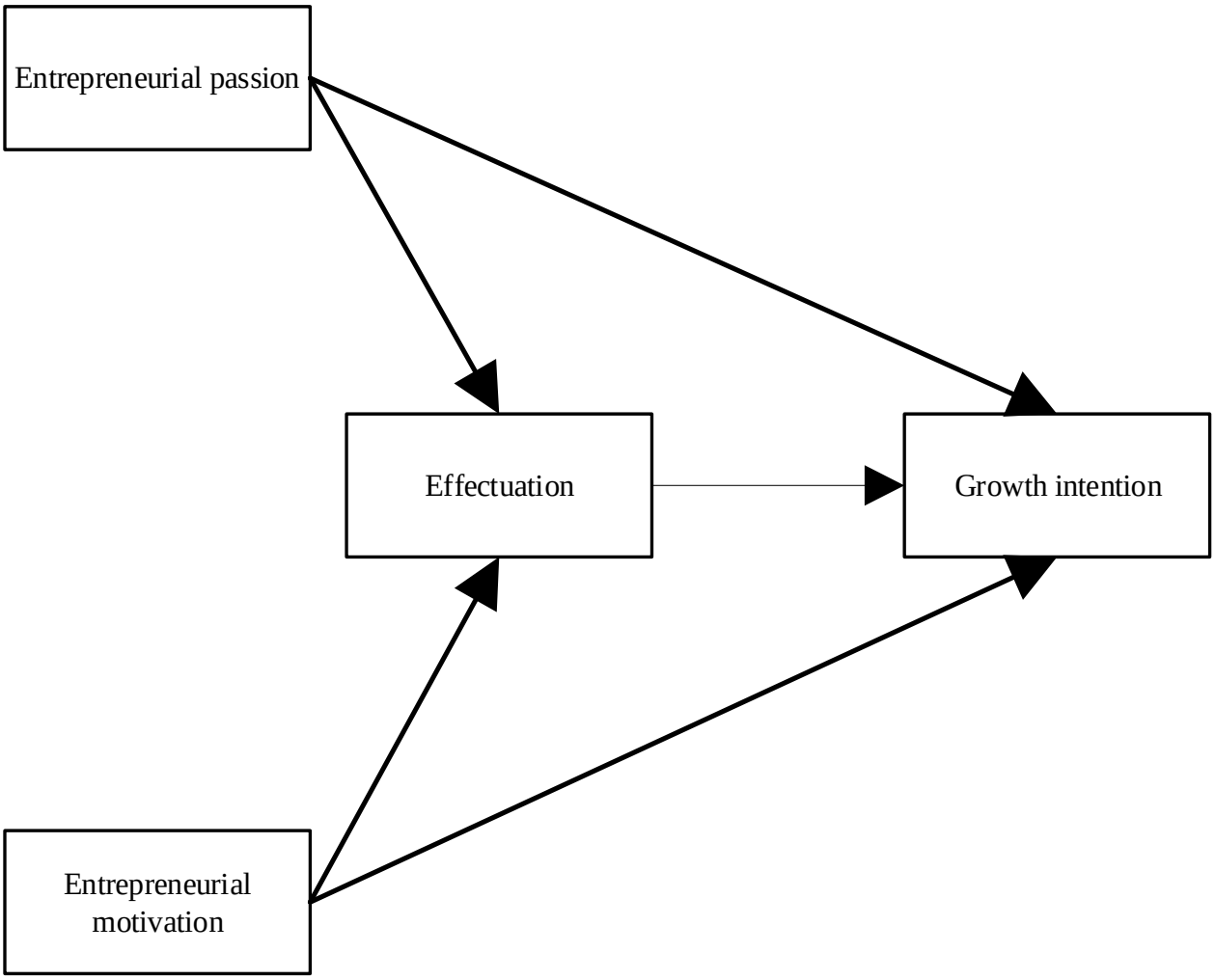

Figure 3.3: The Conceptual Framework

3.3 Hypotheses Development

3.3.1 Entrepreneurial Passion and Growth Intention

Intention has been found to predict planned behaviour in social and behavioural research (Ajzen, 1991; Krueger et al., 2000). Accordingly, entrepreneurship research for decades has continuously examined entrepreneurial behaviour through the lens of intention

(Fini et al., 2012; Fitzsimmons & Douglas, 2011; Hockerts, 2017; Krueger, Reilly et al., 2000; Laspita et al., 2012; Krueger & Carsrud, 1993). Entrepreneurs' intention to start (Hwee Nga & Shamuganathan, 2010; Liñán et al., 2011), grow (Knockaert et al., 2015; Rasmussen et al., 2016) and exit (Collewaert, 2012; Josic et al., 2012) ventures have been researched extensively. Further, some scholars have investigated the probability of moving from intention to action (Kautonen et al., 2015; Shirokova et al., 2016; Van Gelderen et al., 2015).

Researchers in the entrepreneurship domain attest to the fact that most entrepreneurial actions are intentional (Krueger & Carsrud, 1993; Krueger et al., 2000; Lee, Wong, Foo & Leung, 2011; Schlaegel & Koenig, 2014). Therefore before the execution of planned behaviour, cognition is involved. "Entrepreneurial cognitions are the knowledge structures that people use to make assessments, judgments, or decisions involving opportunity evaluation, venture creation, and growth" (Mitchell et al., 2002, p.97). This cognitive processing is not all free from emotion as there is strong evidence that several core aspects of the entrepreneurial process such as opportunity recognition (Baron, 2008) and evaluation (Foo, 2011; Welpe et al., 2011) are influenced by emotion. Most research on emotion in entrepreneurship has tended to fall under one of three broad headings: mixed (Hayton & Cholakova, 2012; Podoynitsyna et al., 2012; Wolfe & Shepherd, 2015; Welpe et al.,2011), negative (Patzelt & Shepherd, 2011; Wolfe & Shepherd, 2015; Biniari, 2012) and positive emotion (Biraglia & Kadile, 2017; Jennings et al., 2015; Mitteness et al., 2012). Several pieces of empirical evidence suggest emotions associated with life experiences exert a strong effect on entrepreneurs' decision-making, motivation and action.

While we know the general importance of emotion, we know little about positive emotion other than their effects on the entrepreneurial process. Risk perception is central in entrepreneurial decision-making (Brustbauer, 2016). Conflicting and mixed emotions are found to influence entrepreneurs' risk perception strongly, thus impacting their judgment (Podoynitsyna et al., 2012) and opportunity evaluation (Foo, 2011) profoundly. Furthermore, Welpe et al. (2011) noted the role played by mixed emotions in the exploitation of opportunity, such that joy and anger show a strong positive relationship with exploitation tendencies whereas fear reduces it. More than any other career path, entrepreneurs encounter negative emotion resulting from high risk-taking, job and income uncertainty, but they develop coping mechanisms (Patzelt & Shepherd, 2011). In the case of failure, entrepreneurs perceive it as a

goal not met (Wolfe & Shepherd, 2015) and this emotion can lead to an improvement in subsequent action (He et al., 2017).

Positive emotion research in entrepreneurship has grown rapidly in recent years. Creativity which is an important component of the entrepreneurship process relates significantly to positive emotion, both at the individual and firm-level (Baron & Tang, 2011; Hayton & Cholakova, 2012). As entrepreneurs with positive emotion state ambitious and broad goals, the effort is enhanced for immediate and future-oriented entrepreneurial tasks needed for the satisfaction of the stated goals (Delgado-García et al., 2012; Foo et al., 2009). Selecting ideas and entrepreneurial tasks in line with these goals stimulate creativity (Baron & Tang, 2011; Hayton & Cholakova, 2012; Perry-Smith & Coff, 2011).

Alongside creativity, scholars have increasingly turned their attention to entrepreneurial passion. For example, Cardon et al. (2009) in their work, conceptualized entrepreneurial passion as intense positive feelings arising from engaging in activities that are salient and meaningful to the identity of that entrepreneur. They identified three roles peculiar to the entrepreneur's identity: founding, inventing, and developing a business. Baron (2008) argues that positive emotion such as passion can stimulate the entrepreneurial process, and a number of studies have begun to examine the relationship between entrepreneurial passion and venture performance.

Existing literature in entrepreneurship proposed that entrepreneurial passion can be positively associated with growth intention because of entrepreneurs' intense positive feelings emanating from engaging in entrepreneurial tasks that are salient and meaningful to the entrepreneur's role identities. Positive feelings encourage entrepreneurs to be ambitious (Delgado-García et al., 2012), hence, they set goals in accordance with their role identities. These positive feelings harness their commitment to the set goals (Drnovsek et al., 2016) such that they are energised to engage in activities that are salient and meaningful to their entrepreneurial identity. However, without set goals, entrepreneurial passion can still impact entrepreneurial behaviour by causing entrepreneurs to persist even in the face of adversity (Cardon & Kirk, 2015).

Intense positive feelings are often regarded "as a sign that all is going well and that current situations pose no serious threat or danger" (Baron, 2008, p. 334). Passionate entrepreneurs are ambitious and make founding and growth decisions for their firms, ignoring likely obstacles. Scholars have recently demonstrated that passion for founding is positively associated with entrepreneurial intention (Biraglia & Kadile, 2017) and passion for developing is positively related with venture growth (Drnovsek et al., 2016). Following this reasoning, the following hypotheses are offered:

Hypothesis 1a. *Entrepreneurial passion for founding is positively associated with growth intention.*

Hypothesis 1b. *Entrepreneurial passion for developing is positively associated with growth intention.*

3.3.2 Entrepreneurial Motivation and Growth Intention

Not all firms appear to seek growth actively. In order to understand this, scholars probe growth related questions such as "why are some entrepreneurs more motivated than others to grow their firms?" (Wright & Stigliani, 2013, p. 15). Three factors were earlier identified as growth motivation which serves as determinants of small business growth, namely, perceived opportunities, ability and need (Davidsson, 1991). A historical discussion about growth has revolved around these factors. An entrepreneurial opportunity has been a central concept in entrepreneurship theory (Shane & Venkataraman, 2000). For example, Opportunity skill was found to be indirectly associated with venture growth through general competencies (Baum et al., 2001). Indeed, capabilities (such as market-sensing which are crucial in enabling exporting SME's opportunity recognition capacity) and the degree of foreign opportunity exploitation lead to increased firm growth (Miocevic & Morgan, 2018).

Knowledge which is pivotal in the development of these competencies has been identified as an essential element of growth (Mueller, 2007). Increased company's strategic options through the development of new competencies allow the pursuit of new customers or markets in areas where its competence matter (Zahra et al., 1999). Gielnik et al. (2017) found

that small business owners who focus on opportunities experience increased business performance over time. Again, innovation which has been linked with venture performance in entrepreneurship research (Verhees & Meulenberg, 2004), is suggested to be a product of opportunity-driven entrepreneurship (Sanders, 2007). Entrepreneurial self-efficacy is another motivating factor that is strongly associated with venture performance (Bingham et al., 2007; Cumberland et al., 2015; Miao et al., 2017; Hmieleski & Baron, 2008b).

Entrepreneurial self-efficacy is a person's perceived ability to successfully handle venture related tasks (Chen et al., 1998; De Noble et al., 1999). This perceived ability affects individual motivation to engage in entrepreneurial activity because those who believe in their ability to successfully put in more effort and are willing to persist even in challenging situations (Cardon & Kirk, 2015; Gatewood et al., 2002). In a dynamic environment, high entrepreneurial self-efficacy exert positive effects on firm performance (Hmieleski & Baron, 2008b). Baum et al. (2001) claimed that entrepreneurial self-efficacy has an indirect effect on venture growth through motivation, while Baum & Locke (2004) found a direct effect of entrepreneurial self-efficacy on venture growth. On the basis of this reasoning, the following hypotheses are offered:

Hypothesis2a. *Entrepreneurial opportunities are significantly associated with growth intention.*

Hypothesis2b*. Entrepreneurial self-efficacy is significantly associated with growth intention.*

3.3. 3 Entrepreneurial Passion and Effectuation

Entrepreneurial passion has been highlighted to understand the relationship between various constructs in entrepreneurship research. The intense positive feelings that come from engaging in tasks salient to the entrepreneur's role identity has been linked with harmonious passion (Gielnik et al., 2017; Murnieks et al., 2018; Murnieks et al., 2014). Harmonious passion rises from autonomous integration of activities into a person's identity. An autonomous internalisation happens when individuals accept activities that are important to them freely and without any condition (Vallerand, 2010). Consequently, individuals with this type of passion are only desirous of performing activities that they have control over (Bouizegarene et al.,

2018). Effectuation, on the other hand, is "rooted in the realization that human beings cause the future and, therefore, the future can be controlled and/or created through consensual human action" (Sarasvathy, 2008, p. 27). Therefore, the passion of these entrepreneurs leads them to effectuate. Interestingly, harmonious passion is also linked to flexibility, as individuals with this type of passion can control their engagement with the object of their passion (Vallerand et al., 2003b).

Leveraging contingencies is one of the fundamental principles of effectual logic, which has shown to be advantageous for effectual entrepreneurs in challenging contexts (Ciszewska-Mlinaric et al., 2016; Sarasvathy et al., 2014; Welter et al., 2016). As a result of this flexibility, passionate entrepreneurs are more to embrace the unexpected in the entrepreneurial process. Examining the impact of positive affect on flexibility in cognitive processes, Isen (1987) suggests the presence of heuristic processing strategy and a recent study has found that harmoniously passionate entrepreneurs resort to effectuation as their choice of decision-making style (Stroe et al., 2018). Thus:

Hypothesis 3a. *Entrepreneurial passion for founding is significantly associated with effectuation.*

Hypothesis 3b. *Entrepreneurial passion for developing is significantly associated with effectuation.*

3.3.4 Entrepreneurial Motivation and Effectuation

The centrality of entrepreneurial opportunities in the entrepreneurial process has been affirmed by scholars in the field (Grégoire & Shepherd, 2012; McMullen et al., 2007; Ramoglou & Tsang, 2016; Schumpeter, 1934; Shane & Venkataraman, 2000). Entrepreneurial action is initiated in response to the presence of opportunities or the willingness to create one (Renko & Freeman, 2017; Yitshaki & Kropp, 2016)**.** Examining opportunities as propensities, Ramoglou & Tsang (2016) emphasised the motivating power of entrepreneurial opportunities. Indeed, prior knowledge plays a crucial role in opportunities perception of the entrepreneurs. Shane (2000: 448) suggests that entrepreneurs' perception of opportunities emanate from what they know or "information that they already possess".

Entrepreneurs' network capability has also been found to positively impact opportunities perception (Shu et al., 2018). Effectuators relied on means to create outcomes or effects, and the means of "what I know" and "who I know" (Sarasvathy, 2008) are pertinent to opportunity perception. Shane (2000) further asserts that opportunity discovery is dependent on the delivery and processing of information. Concerned with the cognitive processes involved in perceiving opportunities, Grégoire et al. (2010) noted that prior knowledge offers a foundation to process and utilise new information. Therefore opportunities perception differ among individuals as their differences affect the way they process information (Mitchell & Shepherd, 2010).

Indeed, entrepreneurs use knowledge structures to process information. Cognitive logics have been identified as the process of transformation with effectuation adjudged as coordinating individual's perceptions and the external environment (Randerson et al., 2016). The confidence of what I know is also likened to the ability that backed the belief to perform entrepreneurial tasks successfully. Stroe et al. (2018) found an association between entrepreneurial self-efficacy and effectual logic. Efficacious entrepreneurs see environmental uncertainty as the source of unexpected events that can offer an opportunity (Engel et al., 2014). Therefore:

Hypothesis 4a. *Entrepreneurial opportunity is significantly associated with effectuation.*

Hypothesis 4b. *Entrepreneurial self-efficacy is significantly associated with effectuation.*

3.3.5 Effectuation and Growth Intention

Since the early 2000s, effectuation as a theoretical perspective has gained substantial interest in literature (Deligianni et al., 2017; Dew, Read et al., 2009; Frese et al., 2019; Grégoire & Cherchem, 2019; Read et al., 2009; Sarasvathy & Dew, 2008; Stroe et al., 2018; Tryba & Fletcher, 2019; Welter et al., 2016; Wiltbank et al., 2009). Contrary to the traditional way of thinking about entrepreneurial behaviour, effectual logic has caused a paradigm shift by emphasising control rather than prediction when dealing with future phenomena's uncertainties (Sarasvathy, 2001). "Effectuation processes take a set of means as given and

focus on selecting between possible effects that can be created with that set of means" and causation processes "take a particular effect as given and focus on selecting between means to create that effect" (Sarasvathy, 2001, p. 245).

Uncertainties associated with the venture creation and development process are very high (Gartner & Liao, 2012). Furthermore, these processes are laden with high levels of uncertainty, because "the entrepreneur is unable to effectively gather information about potential decisions regarding opportunity exploitation and the probability of achieving certain outcomes" (Hmieleski & Baron, 2008a, p.286). At these stages, Wu and Knott (2006) noted that entrepreneurs encounter uncertainty in two ways: demand uncertainty dealing with the potential value of a certain opportunity and ability uncertainty having to deal with channelling the resources and skills to actualise an opportunity. However, entrepreneurs are still known to take actions in the face of this uncertainty (McMullen & Shepherd, 2006).

Entrepreneurs seek to deal with the future that is difficult to analyse and predict, relying only on exploiting and seizing opportunity as it appears, therefore understanding and dealing with these spheres of human action through effectuation processes are very suitable and quite frequent (Sarasvathy, 2001). Reymen et al. (2015) reported that technology firms that view growth as problematic use the effectual principle of affordable loss to manage growth expectations and ambitions. There is no ambiguity in the relationship between effectual reasoning and venture performance (profitability, sales and growth) (Smolka et al., 2018; Cai et al., 2016). Effectuation emphasises flexibility, adaptability, and collaborative decision-making (Ortega et al., 2017) which "increase the possibility of new ventures' survival by stretching resources" (Cai et al., 2016, p. 390). Read et al. (2009) also concluded that there is a strong relationship between effectuation and firm performance.

The uncertainty associated with innovation activities as well and innovativeness have been found to impact venture performance positively (Beynon et al., 2018; Huggins & Thompson, 2015; Lane & Maxfield, 2005; Verhees & Meulenberg, 2004; Williams & McGuire, 2010; Wong et al., 2005; Xia & Roper, 2016). When introducing innovation, entrepreneurs encounter uncertainty in areas such as mobilisation of human and financial resources as well as market acceptance (Autio et al., 2014). The uncertainty that is involved in the commercialisation of innovation is better dealt with through effectuation process

(Sarasvathy, 2001). It makes no difference how we view innovation, whether as the ability to innovate or products and services that result from innovation (Calantone et al., 2002; Story et al., 2015), innovation remains an effectual process (Roach et al., 2016). Therefore, several lines of evidence suggest that both innovativeness and product/service innovation are associated with effectuation (Dutta et al., 2015; Reymen et al., 2017; Reymen et al., 2015; Roach et al., 2016; Berends et al., 2014).

Furthermore, SMEs' flexibility promotes innovation, and this is sometimes demonstrated through product modifications (Verhees & Meulenberg, 2004) which is driven by R&D, technology and competitive advantage in the firm's product market (Romano, 1990). Wolff and Pett (2006) claim that innovation capability leads to growth through product and process improvement. In fact, effectual logic has been acknowledged as beneficial to new venture performance and growth (Grégoire & Cherchem, 2019; Read et al., 2009). According to Dutta and Thornhill (2014, p. 121) entrepreneurs that relied on "effectuation-oriented cognitive logic" have growth predisposition and this view is supported by Cai et al. (2016, p. 391) who argue that "effectuation allows new ventures to sense, shape and seize new opportunities for creating and capturing value". On the basis of this reasoning, the following hypothesis is offered:

Hypothesis 5. *Effectuation is significantly associated with growth intention.*

3.3.6 Mediating Role of Effectuation

What are the mechanisms through which entrepreneurial passion impacts entrepreneurial action? Due to environmental dynamism, entrepreneurs are faced with uncertainty as they seek to exploit opportunities; "such situations give rise to heuristic, effectuation, selection mechanism" (Mitchell et al., 2007, p. 12). To deal with uncertainty, entrepreneurs make a judgment using heuristics (Autio et al., 2014) and effectuation presents them with "a set of internally consistent decision criteria for guiding such action" (Sarasvathy & Dew, 2008, p. 732).

Entrepreneurial passion may also be associated with venture growth because it stimulates entrepreneurs to think in order to overcome hurdles on the growth trajectory. At

crucial times when entrepreneurs make decisions, entrepreneurial passion is a major determinant of the choice of the decision-making logic that is used (Stroe et al., 2018). The literature on venture performance and entrepreneurial passion have highlighted several mediators of this relationship (Baum & Locke, 2004; Baum et al., 2001; Biraglia & Kadile, 2017; Drnovsek et al., 2016). Entrepreneurial passion may lead to venture growth through communicated vision and organisational innovation (Baum & Locke, 2004; Baum et al., 2001). As entrepreneurs scramble for resources to achieve their growth aspiration, communicating this vision with their social networks (who I know) could open up a world of opportunities(Greve & Salaff, 2003; Guo et al., 2016). Similarly, flexibility which is a key tenet of effectuation is believed to promote innovation (Tatikonda & Rosenthal, 2000; Zhou & Wu, 2010) and Baum et al. (2001) suggest that entrepreneur's passion could impact venture performance through organisational innovation. Thus:

> ***Hypothesis 6a.*** *Effectuation mediates the relationship between entrepreneurial passion for founding and growth intention.*
> ***Hypothesis 6b.*** *Effectuation mediates the relationship between entrepreneurial passion for developing and growth intention.*

Scholars have anticipated the mechanism through which entrepreneurs' motivation affects their behaviours (Carsrud & Brännback, 2011). Seeing entrepreneurship an intentional act (Krueger & Carsrud, 1993; Krueger et al., 2000; Lee et al., 2011; Rai et al., 2017), entrepreneurial motivation to act results from cognition (Hechavarria et al., 2012). Entrepreneurs use knowledge structures when making a decision concerning venture related issues such as start-up and growth (Mitchell et al., 2002). The relationship between these motivational factors and venture performance abound in the literature (Baum & Locke, 2004; Baum et al., 2001; Cassar, 2006). However, scholars have suggested that "different kinds of mental connections play different roles in the process" (Grégoire et al., 2010, p. 413). In fact, Dutta & Thornhill (2014) found differences in the formation of entrepreneurial growth intention, which primarily resulted from the type of venture cognitive logics used. Therefore:

> ***Hypothesis 7a.*** *Effectuation mediates the relationship between Entrepreneurial opportunities and growth intention.*

Hypothesis 7b. *Effectuation mediates the relationship between Entrepreneurial self-efficacy and growth intention.*

In summary, the hypothesised relationships are outlined Figure 3.4.

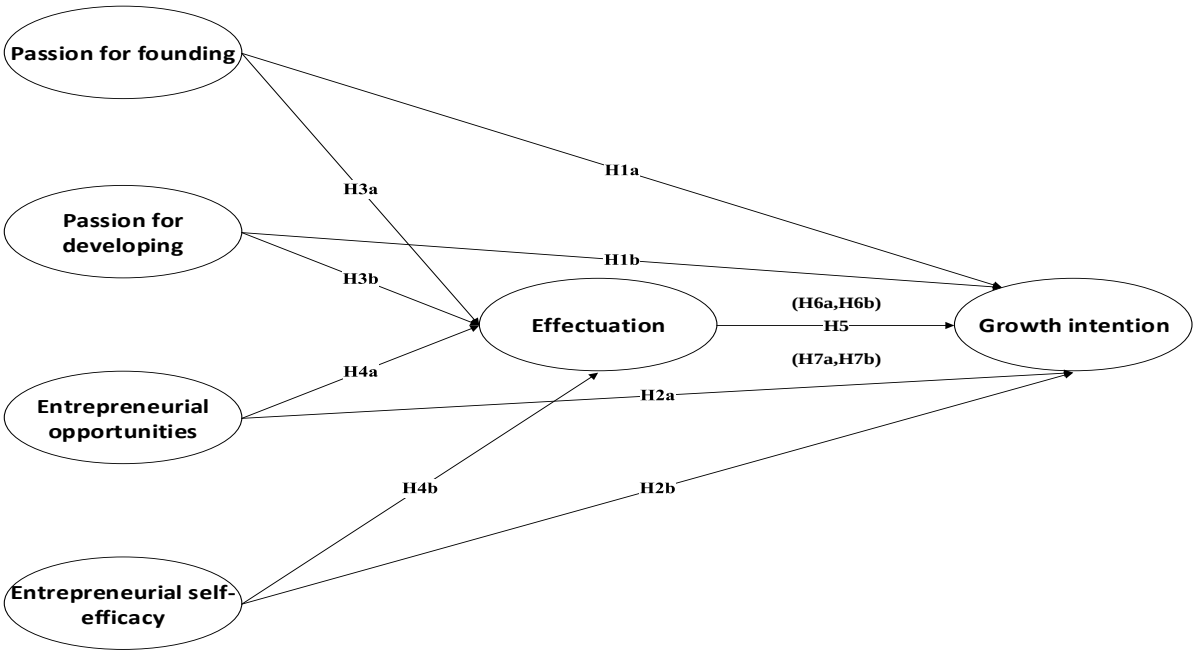

Figure 3. 4: Hypothesised Relationships from the Conceptual Model

3.4 Chapter summary

This chapter presented the conceptual framework and the theoretical development of the hypothesised relationships to be examined in this study. These hypothesised relationships were summarised and reflected in the research model in Figure 3.4. The research model extends the TPB by incorporating entrepreneurial passion. The mediating role of effectuation was also examined in these relationships. The next chapter shows the operationalisation and the measure of these constructs.

Chapter Four: Research Methodology and Method

4.1 Chapter outline

This chapter discusses the methodology and method used in this study, outlining the philosophical roots of this method. The chapter begins by describing various research paradigms and giving justifications for choosing pragmatism as the philosophical position or paradigm in the current research. This is followed by a discussion of the mixed method research approach and the rationale for such choice. The next section outlines the research design used in this study. Other areas covered include the level of analysis, population and sampling method, sample size, piloting, as well as the tools used for data collection. The following section then discusses the data analysis methods employed for the quantitative and qualitative data collected. Validity and reliability of this study are also discussed.

4.2 Research Paradigm

Paradigms encapsulate fundamental values that influence the way knowledge is developed. The ways research is being conducted, and the nature of the research being conducted are affected by these philosophical orientations (Mertens, 2008). The values held by individual researchers are influenced by factors such as their field of discipline, mentors' or advisors' preferences as well as area of their research interest and this often affect the approach that they favour (Creswell, 2013; Saunders et al., 2007). From the review of literature three, most common research paradigms are commonly referred to: (Post-) Positivism; Interpretivism; Pragmatism (See Table 4.1).

Table 4.1: Research Paradigm in Social and Management Research (Merriam & Tisdell, 2015; Morgan, 2007; Tracy, 2019)

	(Post-) Positivism	Interpretivism	Pragmatism
Ontology (nature of reality)	Single, true, apprehensible	Socially constructed	Multiple, fragmented, layered
Epistemology (nature of knowledge)	Discovered; a priori, true, objective	Produced; dependent and value-laden; subjective, co-created	Relative, Intersubjective "truth" is a myth; knowledge is as much fantasy as it is reality
Goal of research	Predict, control, generalize	Describe, understand, interpret	Deconstruct, problematize, question, interrupt
Method (strategies for gathering, collecting and analysing data)	Viewed as value-free; multiple methods (often quantitative and experimental) triangulated to ensure accuracy and validity	value choice with ethical and political ramifications; multiple methods show the contexts' layered and partial nature; hermeneutical; seeks *verstehen*	Mixed Methods; often coupled with considerations of various and overlapping mediated representations of the scene
Focus	Building knowledge through analysis of objective behaviour (behaviour that can be measured, counted, or coded)	"Making sense" of scene from the participants' point of view – examining not only behaviours but intention and emotion	Questions assumption that there is a place where reality resides; " Is there a there there? "

4.2.1 The Research Paradigm for this Study

This research sets out to explore and understand entrepreneurial phenomena in their nascent research stages as well as test theories associated with other entrepreneurial phenomena in their intermediate and advanced stages. Thus, this research is closely suited to the pragmatism paradigm. Pragmatism focuses on the solution to problems, application of what would likely work under a given circumstance rather than emphasising methods the researcher is satisfied with. It seeks to employ an approach that will aid understanding and resolution of the problem (Creswell, 2013). "Pragmatism argues that the most important determinant of the research philosophy adopted is the research question – one approach may be 'better' than the other for answering particular questions"(Saunders et al., 2007, p. 110). This offers researchers the flexibility of mixing approaches in a singular study if the situation demands, not being hindered by loyalty to a particular philosophical orientation and able to access as well as enjoy the strength of different approaches (Morgan, 2007; Onwuegbuzie & Leech, 2005).

4.2.2 Research Approach

This research was conducted using a mixed-method approach, combining qualitative and quantitative methods. “Mixed methods research is the type of research in which a researcher or team of researchers combine elements of qualitative and quantitative research approaches (e.g., use of qualitative and quantitative viewpoints, data collection, analysis, inference techniques) for the broad purposes of breadth and depth of understanding and corroboration” (Johnson et al., 2007, p. 123). While the strength of qualitative research lies in the quality and depth of data collected, quantitative research is rich in the number and volume of data collected and integrating their distinctive strength can no doubt strengthen and broaden the study (Yin, 2006; Anyan, 2013).

Specifically, in conducting this study, a convergent parallel mixed method design in which both quantitative and qualitative data were collected concurrently was adopted (Creswell, 2013). The quantitative study was the first phase of the research conducted while the qualitative part was used to support the quantitative phase. The main aim of this design is to support and when necessary, confirm the findings from the first phase. This study tested hypothesised relationships among variables while controlling for some relevant demographic variables.

4.2.3 Rationale for Mixed Method

Entrepreneurs occupy a central position in entrepreneurship research. Their actions and identities have been of interest to entrepreneurship researchers, however, entrepreneurs are often studied separately from their lived experiences “ignoring essential insights, which has potentially damaging implications for theoretical and meta-theoretical development as well as for practice” (Berglund, 2015, p. 472). Interestingly, mixed-method “seeks to extend the breadth and range of enquiry by using different methods for different inquiry components” (Greene et al., 1989, p. 259) and research in nascent and intermediate stages are recommended to be conducted using mixed-method approach (Edmondson & Mcmanus, 2007; Perry et al., 2012). Qualitative methods suit the part of the study where there is a need to explore and

understand the reasons for certain decisions made by entrepreneurs, while quantitative methods fit the other part that tested hypothesised relationships among constructs.

4.2.4 Quantitative Research Approach

Quantitative research is an objective way of inquiry that is dependent on measurable social reality. This approach mainly involves deductive testing of objective theories by investigating the relationship among quantifiable variables (Creswell, 2013). The observable variables in a quantitative research approach are measured by an instrument with a structured set of questions and responses (Creswell, 2012). Data collected are statistically analysed to ascertain if the data collected support the theories under examination. In this study, there are two independent variables (entrepreneurial passion and motivation), one dependent variable (growth intention) and one mediator (effectuation).

4.2.5 Qualitative Research Approach

Qualitative research is a subjective and inductive investigation of phenomena to understand individuals' feelings, thoughts or interpretations of it (Creswell, 2013). Qualitative approaches are usually used to explore new phenomena, "where specific methods are used to examine how individuals see and experience the world"(Given & Saumure, 2008, p. xxix). The researcher is central in the process of collecting, analysing and interpreting meaning to the given topic under examination such that no emphasis is laid on numerical measurement (Zikmund et al., 2010). Thus, data collection appears more flexible and reflexive as data are collected mostly with unstructured, open-ended questions that allow the respondent the privilege of expressing themselves without limitation.

4.3 Level of Analysis

The goal of this study is to identify predictors that may influence entrepreneurial growth intention and the role of effectual logic on such relationships. Entrepreneurial decision-making results from the interplay between emotion and cognition (Ma et al., 2017). Consequently, individual factors such as motivation, gender, emotion, social cognition, education and experience as well as family background are found to predict both actual growth and growth

intention (Baum & Locke, 2004; Baum et al., 2001; Busenitz & Lau, 2001; Hansen & Hamilton, 2011). Scholars in the field of entrepreneurship have also echoed that the best measurement of entrepreneur's success is by their firm's performance attesting to the fact that a firm's action is impacted by the individual-level behaviour of the entrepreneur (Covin & Slevin, 1991). Firm performance reflects or captures an aggregation of some indicators of the entrepreneur's effectiveness (Waldman & Yammarino, 1999). Interestingly, in the entrepreneurship domain, outcomes at a level of phenomena have a bearing and an effect on outcomes of other levels (Welter, 2011). Behaviour is pivotal in entrepreneurial action hence researching this requires person-centred (individual) approach and analysis at this level is geared towards the entrepreneur who carries out the activities that spur innovation and growth (Hill & Birkinshaw, 2010).

4.4 Research Instruments

Data for this study were collected using a questionnaire with Likert scales as well as a limited number of open-ended questions.

4.4.1 Questionnaire

The use of questionnaires is one of the main ways of collecting primary data and can be administered personally, electronically or sent through the mail. "A questionnaire is a pre-formulated written set of questions to which respondents record their answers, usually within rather closely defined alternatives. Questionnaires are an efficient data collection mechanism when the researcher knows exactly what is required and how to measure the variables of interest" (Sekaran & Bougie, 2003, p. 395). Within business and management research, collection of data is mostly done using questionnaires as the survey strategy (Adams et al., 2007; Saunders et al., 2007). This is suitable when collecting the same data set from a large number of participants, as every respondent is asked to respond to the same set of questions. More importantly, the design and development of the questionnaire are crucial in order to come up with reliable and valid instruments.

For this study, the instrument's items were adopted and adapted from literature. For a better response rate and to avoid biases, the questionnaire's length, wording, structure and

contents were also assessed by experts (Sekaran & Bougie, 2003). Afterwards, a pre-test was conducted to ensure reliability, content and construct validity (Nahm et al., 2002) because it is recommended that data collected through survey should be tested to "check that questions work as intended and are understood by those individuals who are likely to respond to them" (Hilton, 2015, p. 15).

4.4.2 Open-ended Questions on the Questionnaires

Putting the respondents first was central in the data collection stage of this study. Business owners are busy, and it was a challenge to persuade many of them to participate in the survey. As a result of the responses from the pilot study, when asked if they are willing to participate in a follow-up interview, it was decided that including open-ended questions in the survey was the best option. Open-ended questions allow respondents to express the reasons behind the survey answers provided when ticking numbers and boxes in pre-set categories of response (Creswell, 2012). It gives the opportunity to probe further into what respondents mean by responding to a particular question on pre-set categories of response. However, open-ended could discourage respondents' participation because it is too demanding and take more time to answer (Neuman, 2014). Consequently, it is recommended that the number of open-ended questions should be few (Cohen et al., 2007). For this study, two open-ended questions were included in the questionnaire, each designed to probe deeper into entrepreneurial passion and motivation.

4.5 Questionnaire Development and Design

The questionnaire's design and development are important in the research process because it determines the quality of data and the success of the data collection stage (Roberson & Sundstrom, 1990). For a desirable response rate, researchers have recommended that the design and development should be respondent-centred: "the respondent defines what you can do: the types of questions you can reasonably ask; the types of words you can reasonably use; the concepts you can explore and the methodology you can employ" (Gendall, 1998, p2). This involves logically structured activities that directly impact the quality of data collected (Lietz, 2010; Roberson & Sundstrom, 1990). The ultimate goal of this is to design an instrument that

is reliable with criterion, content and construct validity (DeVellis, 2016). Devellis suggests eight stages viz:

- Determine clearly what it is you want to measure
- Generate an item pool
- Determine the format for the measurement
- Have initial item pool reviewed by experts
- Consider the inclusion of validation of items
- Administer items to a development sample
- Evaluate the items
- Optimize scale length.

In the same instant, Churchill (1979) recommends eight steps, as illustrated in Figure 4.1. These steps are compressed into seven, as shown in Table 4.2 and that were adopted for this study.

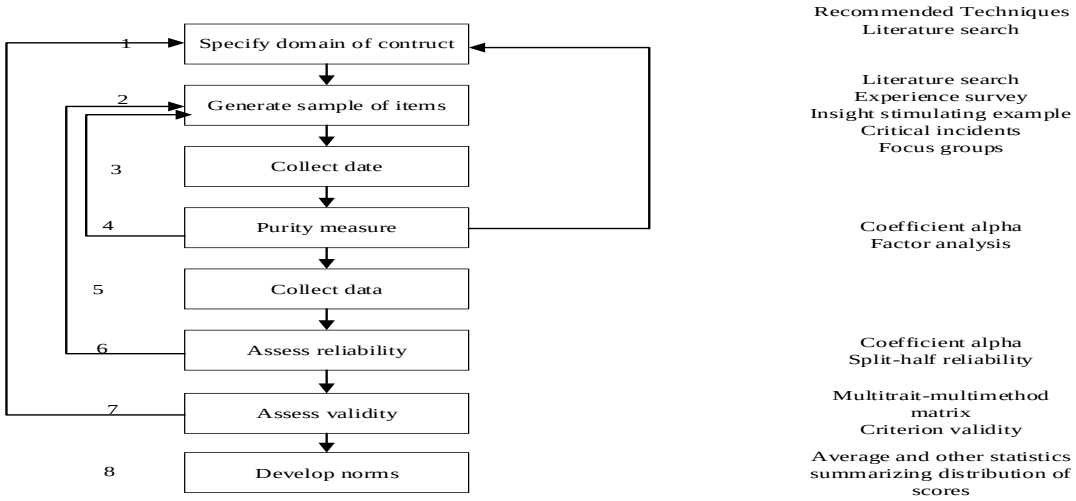

Figure 4.1: Suggested Procedure for Developing Better Measures

Source: Churchill (1979).

Table 4.2: Scale Development Process

Step 1	Determine what to measure
Step 2	Operationalisation of variables
Step 3	Consider the ideal questionnaire length and time to complete it
Step 4	Pilot study
Step 5	Scale purification
Step 6	Data collection
Step 7	Validity and reliability of the research instrument

4.5.1 Determine What to Measure

The first step in the design and development of a questionnaire is to determine what exactly it is that you want to measure. Clarity and specificity are core in identifying constructs to be measured in order to generate items. As literature review offers the opportunity for the researcher to engage in scholarly discussion of theoretical and conceptual advances in their field, this aids clarity and clarity leads to specificity (DeVellis, 2016). For this study, the conceptual framework and theoretical model result from a systematic review of literature, such that the theoretical model depicts and examines relationships among the following constructs: growth intention, entrepreneurial passion, entrepreneurial motivation and effectuation.

4.5.2 Operationalisation of Variables

Constructs cannot be measured directly but can be measured or represented by one or more item(s) or indicator(s) (Hair et al., 2014). The process of translating abstract constructs into measurable empirical variables is referred to as operationalisation (Davidsson, 2016). Operationalisation entails certain advancement in empirical procedures (operations) like experimental protocol, survey questions and interview schedules that result in quantitative measures representing the latent variables. The conceptual and operational definitions of all constructs for this study are shown in Table 4.3 through 4.9.

Table 4.3: Constructs Definitions and Sources

Concepts	Conceptual definition	Operational definition	Reference(s)
Growth intention	Growth intention is "the entrepreneur's explicit intent in terms of the growth trajectory he or she would like their venture to follow over its life-cycle"	A construct measure of nineteen item statements (on a 5-point scale) reflecting technological improvement, resource aggregation, market expansion and process improvements	(Dutta & Thornhill, 2014, p. 184) (Kozan et al., 2006; Wolff & Pett, 2006)
Effectuation	"Effectuation processes takes a set of means as given and focus on selecting between possible effects that can be created with that set of means"	A construct measure of fourteen item statements (on a 5-point scale) reflecting experimentation, affordable loss, flexibility and pre-commitments	(Sarasvathy, 2001, p. 245; Chandler et al., 2011)
Entrepreneurial passion			
Passion for founding	"A founder identity, where the entrepreneur's passion is for activities involved in establishing a venture for commercializing and exploiting opportunities"	A construct measure of four-item statements (on a 5-point scale) covering establishing new company and owing new business	(Cardon et al., 2009, p516; Cardon et al., 2013)
Passion for developing	"A developer identity, where the entrepreneur's passion is for activities related to nurturing, growing, and expanding the venture once it has been created"	A construct measure of four-item statements (on a 5-point scale) covering marketing of product and service as well as nurturing and growing companies	
Passion for inventing	"An inventor identity, where the entrepreneur's passion is for activities involved in identifying, inventing, and exploring new opportunities"	A construct measure of five-item statements (on a 5-point scale) that cover commercialization, searching for new ideas and opportunities	
Entrepreneurial motivation			
Entrepreneurial opportunity	Entrepreneurial opportunities "are those situations in which new goods, services, raw materials, and organizing methods can be introduced and sold at greater than their costs of production"	A construct measure of eight item statements (on a 5-point scale) reflecting opportunity creation and discovery	(McMullen, Plummer, & Acs, 2007, p273; González, Husted, & Aigner, 2017)

Need for achievement	"Need for achievement is the desire to obtain excellent results by setting high standards and striving to accomplish them. It is a consistent concern with doing things better"	A construct measure of four item statements (on a 5-point scale) covering success, accomplishment and handling new challenges	(Davidsson, 1989; Finogenow, 2017)
Entrepreneurial self-efficacy	"ESE refers to the strength of a person's belief that he or she is capable of successfully performing the various roles and tasks of entrepreneurship".	A construct measure of five-item statements (on a 5-point scale) reflecting innovation, marketing, management, risk-taking, and financial control.	(Chen et al., 1998, p295; Wilson et al., 2007)

Growth intention

To measure entrepreneurial growth intention, items were sourced from literature. Growth intention properties and attributes that have been measured in the literature are technological improvement, resource aggregation and market expansion (Kozan et al., 2006). Wolff & Pett (2006) found process improvement to be a great contributor to the growth, and it was decided that this dimension should be included. Respondents were asked to gauge their intentions to engage the following activities within the next three years. The items were scaled on a five-point Likert scale with 1 = strongly disagree and 5 = strongly agree.

Table 4.4: Summary of Measures of Variables

Variables	Code	**Items**
Technological improvement	GITI_1	Acquiring new equipment
	GITI_2	Computerizing current operations
	GITI_3	Upgrading computer systems
	GITI_4	Replacing present equipment
	GITI_5	Expanding current facilities
	GITI_6	Adding Specialized employees
Resource aggregation	GIRA_1	Expanding advertising and promotion
	GIRA_2	Offsite training for employees
	GIRA_3	Seeking additional financing
	GIRA_4	Seeking professional advice
	GIRA_5	Researching new markets
market expansion	GIME_1	Adding a new product or service
	GIME_2	Selling to a new market
	GIME_3	Adding operating space
	GIME_4	Expanding distribution channels
Process improvements	GIPI_1	Leading the industry in new ideas
	GIPI_2	Creating a distinct image for your company
	GIPI_3	Developing new products
	GIPI_4	Developing brand identity

Entrepreneurial Passion

Entrepreneurial Passion was measured using the scale developed by Cardon et al. (2013). The construct has three dimensions: passion for founding, passion for inventing and passion for developing. Respondents were asked to indicate how much they agreed with the following statement. This scale consists of 13 items on a 5-point Likert scale ranging from 1 to 5, 1 = strongly disagree, and 5 = strongly agree.

Table 4.5: Summary of Measures of Variables

Variables	Code	**Items**
Passion for inventing	EPPI_1	It is exciting to figure out new ways to solve unmet market needs that can be commercialized.
	EPPI_2	Searching for new ideas for products/services to offer is enjoyable to me.
	EPPI_3	I am motivated to figure out how to make existing products/services better.
	EPPI_4	Scanning the environment for new opportunities really excites me.
	EPPI_5	Inventing new solutions to problems is an important part of who I am.
Passion for founding	EPPF_1	Establishing a new company excites me.
	EPPF_2	Owning my own company energizes me.
	EPPF_3	Nurturing a new business through its emerging success is enjoyable.
	EPPF_4	Being the founder of a business is an important part of who I am.
Passion for developing	EPPD_1	I really like finding the right people to market my product/service to.
	EPPD_2	Assembling the right people to work for my business is exciting.
	EPPD_3	Pushing my employees and myself to make our company better motivates me.
	EPPD_4	Nurturing and growing companies is an important part of who I am.

Effectuation

Chandler et al. (2011) is the first validated scale for effectuation in literature and also the most used. To measure effectuation, 14 items were adapted from Chandler et al. (2011) covering four dimensions such as experimentation, affordable loss, flexibility and pre-commitment. Respondents were asked to indicate how much they agreed with the following statement. The items were scaled on a five-point Likert scale with 1 = strongly disagree and 5 = strongly agree.

Table 4.6: Summary of Measures of Variables

Variables	Code	**Items**
Experimentation	EFFEX_1	I experimented with different products and/or business models.
	EFFEX_2	The product/service that I now provide is essentially the same as I originally planned.
	EFFEX_3	The product/service that I now provide is substantially different than I first imagined.
	EFFEX_4	I tried a number of different approaches until I found a business model that worked.
Affordable loss	EFFAL_1	I was careful not to commit more resources than I could afford to lose.
	EFFAL_2	I was careful not to risk more money than I was willing to lose with the business idea.
	EFFAL_3	I was careful not to risk so much money that could put me in real trouble financially if things didn't work out.
Flexibility	EFFFL_1	I allowed the business to evolve as opportunities emerged.
	EFFFL_2	I adapted what I was doing to the resources I had.
	EFFFL_3	I was flexible and took advantage of opportunities as they arose.
	EFFFL_4	I avoided courses of action that restricted my flexibility and adaptability.
Pre-commitment	EFFPC_1	I used a substantial number of agreements with customers, suppliers, other organizations and people to reduce the amount of uncertainty.
	EFFPC_2	I used pre-commitments from customers and suppliers as often as possible
	EFFPC_3	My focus was rather on the reduction of risks by approaching potential partners and customers

Entrepreneurial self-efficacy

Entrepreneurial self-efficacy construct was measured by drawing on the scale developed by Wilson et al. (2007). Using general self-efficacy related items like the one developed by Wilson et al. (2007) has been commended for its parsimonious approach for a concept with diverse skill sets. Respondents were asked to rate themselves against their peers. This was measured with six items using a 5-point Likert scale ranging from 1=much worse to 5=much better.

Table 4.7: Summary of Measures of Variables

Variables	Code	**Items**
Entrepreneurial self-efficacy	EMSE_1	Being able to solve problems.
	EMSE_2	Managing money.
	EMSE_3	Being creative.
	EMSE_4	Getting people to agree with you.
	EMSE_5	Being a leader.

Entrepreneurial opportunities

To measure entrepreneurial opportunities, this study employed the scale proposed by González et al (2017) capturing both opportunity creation and discovery. Respondents were asked to indicate how much the following statements describe how they generally feel when solving an everyday problem on a 5-point Likert scale ranging 1 = strongly disagree and 5 = strongly agree.

Table 4.8: Summary of Measures of Variables

Variables	Code	**Items**
Opportunity discovery	EMOD_1	I discovered the solution to the problem.
	EMOD_2	I realized there was a solution.
	EMOD_3	I found a solution to the problem.
Opportunity creation	EMOC_1	I created a solution for the problem.
	EMOC_2	I made a solution for the problem.
	EMOC_3	I developed an answer to the problem.

Need for achievement

Need for achievement was measured using the scale developed by Davidsson (1989). Respondents were asked to indicate how the following statement describes them. The four items were scaled on a five-point Likert scale with 1 = strongly disagree and 5 = strongly agree.

Table 4.9: Summary of Measures of Variables

Variables	Code	**Items**
Need for achievement	EMNA_1	I have always wanted to succeed and to accomplish something in my lifetime.
	EMNA_2	I find it hard to understand people who always keep on striving for new goals although I have already achieved all success they could possibly have imagined.
	EMNA_3	To face new challenges and to manage to handle them is important to me.
	EMNA_4	I am so satisfied with what I have attained in my life that I think that now I can confine myself to keeping what I already have.

Control variables

Four control variables that may help explain new venture growth were also included, namely: number of employees, industry, academic qualification and company's age. The number of employees captured the size of the firm, while the company's age measured years that the firm has operated. The industry was classified by sector in the economies as well as the academic qualification of entrepreneurs. These were included in the model in order to control for possible challenges of newness associated with firm age or size, which might impact growth. Previous research shows that size, education and industry have an influence on effectuation process and venture performance (Gartner & Liao, 2012; Laskovaia et al., 2017; Deligianni et al., 2017). Similarly, firm age also has been found to influence growth aspiration (Puente et al., 2017).

4.5.3 Ideal Questionnaire Length and Completion Time Considerations

The questionnaire's length and completion time have been identified as key determinants of response rate and quality (Herzog & Bachman, 1981). A lengthy questionnaire could be abandoned or filled in a manner that compromises the quality. However, scholars have noted the importance of mode of delivery of survey as pivotal to the survey's success (Malhotra, 2008; Mond et al., 2004). An online survey has been singled out as more likely to succeed where others have failed (Malhotra, 2008).

With the advancement of technology, respondents could fill and submit the survey with clicks on their devices rather than be burdened with delivery and collection of the questionnaire. Software platforms such as Qualtrics provides the researcher with an estimated completion time before the survey is published or launched and the privilege of sending the participants reminders at no additional cost. The content of the questionnaire affects respondents' perception about the length and how long it takes to complete the survey. If the topic of interest is attractive to the participants, they may be willing to give up some of their time to take part, but when they are not attracted by the topic, they may be reluctant to even start or get bored along the way (Fan & Yan, 2010; Hess et al., 2012). In order to gain the attention and trigger the interest of respondents, the reason and relevance of the study were briefly stated in the cover letter of the questionnaire. Additionally, it was ensured that the completion time as estimated by Qualtrics was not more than thirteen minutes as this has been recommended for optimal response rate (Asiu et al., 1998; Handwerk et al., 2000).

4.6 Pilot Study

Researchers are expected to assess the psychometric qualities of an instrument when constructing a new one or to review an old one, hence the scales are examined for adequacy, clarity and appropriate language before final usage (Johanson & Brooks, 2010). To achieve these, a pilot test is often conducted prior to the main study. Prior to data collection, the questionnaire was pre-tested to identify potential areas that are confusing for respondents. This was done to improve the feasibility, simplicity, content, comprehensiveness and layout of the questionnaire based on the feedback from the participants.

Scholars differ widely on the sample size of the pilot study, notwithstanding, some recommendations have resonated in recent years. Johanson & Brooks (2010: 399) "suggest that 30 representative participants from the population of interest are a reasonable minimum recommendation for a pilot study where the purpose is a preliminary survey or scale development". Likewise, Hertzog (2008) recommends sample size ranging from 10 to 40 per group when dealing with groups with the confidence that this will provide accurate estimate sufficient for all possible assessments. Consequently, questionnaires were administered to 30 SMEs owners and managers and data from the pilot study was used to evaluate the reliability and internal consistency of the different scales that made up the questionnaire. It should be noted that these 30 respondents did not participate in the main study as a matter of best practice (Lancaster et al., 2004).

Reliability analysis on all the scales showed the following results (See: Table 4.10). The (Cronbach's alpha >0.7) obtained from all scales were reliable (George & Mallery, 2010; Hair et al., 2014). Hence, no further refinement of scales was done at this stage. The survey instrument was deemed to be reliable in measuring the hypothesised constructs. Furthermore, feedback from the pilot study was key to the improvement of the overall quality of the instrument. For instance, some of the items were reworded for simplicity and clarity based on feedback from the pilot study. The participants were asked if they would like to be contacted for a follow-up study, and just seven out of the thirty participants agreed, representing 23% of them. Therefore the decision was made to replace the planned interview with open-ended questions in the main study.

Table 4.10: Reliability Coefficients of Measurement Scales

Scale	Number of items	Cronbach's alpha
Growth intention	19	0.944
Entrepreneurial passion	13	0.797
Entrepreneurial motivation	15	0.708
Effectuation	14	0.820

4.7 Population and Sampling

A sample of entrepreneurs in New Zealand and Australia whose firm has less than 20 employees were surveyed. The target participants were founders, co-founders, owner-managers and CEOs as well as those that make decisions about the firms' growth.

4.7.1 Sample Size

Mixed method sample design has been a topic of debate among scholars in the field. In recent time, some scholars have acknowledged the importance of power analysis in sample design for quantitative research as well as qualitative research (Marshall et al., 2013; Onwuegbuzie & Leech, 2007a, 2007b). Power analysis enables researchers to determine the appropriate sample size for a study (Cohen, 1992a; Cohen, 1992b). For representation sake, it is recommended that the sample scheme and size should be properly considered in both qualitative and quantitative aspect of the study. Neuman (2014) recommends two solutions to sample size determination. First, using statistical equations about random sampling processes, taking into account assumptions such as degree of variation in the population and degree of confidence.

The second way is to go by a common or conventional accepted amount, a rule of thumb. This second method is suitable when the necessary information required for the computation of statistical equations is not available. Due to the non-probability sample technique of this study, the second method is better. Besides, Fowler (2013) suggests sample size determination must take into consideration the plan of analysis for the study. Therefore, using structural equation modelling, Hair et al. (2014) suggest at least 100 respondents to ensure the fitness of maximum likelihood estimation which is usually the default setting of AMOS estimation procedure and generally accepted as the standard in the field. Similarly, Comrey & Lee (2013) provide a rule of thumb for factor analytic studies such as this: 100 = poor, 200 = fair, 300 = good, 500 = very good, 1,000 or more = excellent.

The sample for the quantitative part of this study includes 528 participants. Contrary to the quantitative approach where the authenticity and acceptance of the finding(s) depend greatly on the sample size and other related issues, in the qualitative approach, there are no

stringent guidelines for the determination of sample size (Gentles et al., 2015; Guest et al., 2006; Tobergte & Curtis, 2013). The rule of thumb for a sufficiently adequate sample is that the sample should be enough to ensure saturation (Galvin, 2015; Guest et al., 2006).

4.7.2 Data Collection Procedure

For New Zealand, potential participants were identified through NZBWW - Publishers of the New Zealand Business Who's Who database. Initially, 7475 persons were identified, and the invitation was sent via email to them, but 2858 invitations bounced back (i.e., were invalid addresses). Out of the 4617 emails that went through, 365 persons acknowledged and indicated their willingness to participate. A soft copy of the questionnaire was sent to the email of the organization via Qualtrics. After that, a weekly reminder was sent over a period of one month with the first and last being just over three weeks. For the first week, 74 completed questionnaires were submitted and 64 for the second week while 55 and 24 participants completed and submitted theirs on the third and fourth week respectively. By the end of the data collection exercise on the 7th of September 2018, a total of 217 completed questionnaires was submitted out the 365 (59% completion rate) that accepted the invitation to participate. From New Zealand, 120 of the 217 participants answered the first open-ended question, and 98 answered the second.

For Australia, Survey Sampling International (SSI) was engaged for access to potential participants on its business database. SSI invited 4536 persons to participate, and 406 people started while 311 participants completed and submitted within two weeks. 194 of the 311 Australian participants responded to the first open-ended question while 212 responded to the second. Looking at the quality of answers, especially for the open-ended questions, the respondents from New Zealand gave more detailed answers than their Australia counterparts. New Zealand participants volunteered to participate without any consideration for monetary rewards, though there were three voucher cards won by three lucky winners at the end of the exercise while SSI paid every Australian participant a token amount. Therefore, those that participated in New Zealand did so because of their interest in the study which could be responsible for the commitment.

4.8 Data Analysis and Discussion of Findings

The study employed a mixed methodology where both quantitative and qualitative data were collected using Likert scales and open-ended questions. Quantitative data analyses were conducted using the Statistical Package for the Social Sciences (SPSS) version 25, AMOS 25, while qualitative data were analysed using NVivo 12 plus (See Table 4.11).

The five research questions were analysed as specified in Table 4.12. The decisions on testing the hypotheses stated in Table 4.13 was based on the outcome obtained from comparing the P-value with the chosen alpha value. If the P-value is less than the chosen alpha value, then the null hypothesis was rejected. If the p-value is greater than alpha, then failure to reject the null hypothesis. In this study, the chosen alpha value was 0.05.

Table 4.11: Methodology Summary of this Research

Design Element	Rationale for Adopting Design Element	Techniques/Approach
Research Paradigm **Pragmatism**	• Focuses on solution to problem. • Application of what will likely work under a given circumstance • It is consistent with research aim to examine and understand	• Abduct approach is utilised to enhance backward and onward movement between induction and deduction.
Research Design **Mixed method** Sequential Explanatory Design	• Seeks to extend the breadth and range of enquiry by using different methods for different inquiry components • It increases findings reliability and credibility through the triangulation of different evidence/ sources. Generalisation of the study findings can thus be proposed.	**1. Survey** Questionnaires was given to the sampled entrepreneurs in in New Zealand and Australia **2.** Open-ended questions.
Data Analysis Method **Content Analysis** **Statistical Analysis**	• Useful technique for capturing large volumes of data, in-depth interviews • Technique commonly used to measure direct, indirect and total effects	Qualitative data gathered analysed using content analysis. Confirmatory Factor Analysis Structural equation modelling

Table 4.12: Statistical Analysis Procedures Used to Answer Research Questions

Research Questions	Analysis Procedures
Q1: What are the factors that motivate entrepreneurs to grow their business?	Content Analysis
Q2: What are the factors that drive entrepreneurs' passion for growth?	Content Analysis
Q3: What effects do entrepreneurial passion and motivation have on the growth intention?	Structural Equation Modelling
Q4: What effects do entrepreneurial passion and motivation have on effectuation?	Structural Equation Modelling
Q5: What effect does effectuation has on growth intention?	Structural Equation Modelling

Table 4.13: Statistical Analysis Procedures Used for Hypothesis Testing

Hypotheses	Direct effects	Analysis Procedures
H1a:	Entrepreneurial passion for founding is significantly associated with growth intention.	Structural Equation Modelling
H1b:	Entrepreneurial passion for developing is significantly associated with growth intention.	Structural Equation Modelling
H2a:	Entrepreneurial opportunities are significantly associated with growth intention.	Structural Equation Modelling
H2b:	Entrepreneurial self-efficacy is significantly associated with growth intention.	Structural Equation Modelling
H3a:	Entrepreneurial passion for founding is significantly associated with effectuation.	Structural Equation Modelling
H3b:	Entrepreneurial passion for developing is significantly associated with effectuation.	Structural Equation Modelling
H4a:	Entrepreneurial opportunity is significantly associated with effectuation	Structural Equation Modelling
H4b:	Entrepreneurial self-efficacy is significantly associated with effectuation	Structural Equation Modelling

H5:	Effectuation is significantly associated with growth intention.	Structural Equation Modelling
	Mediation	
H6a:	Effectuation mediates the relationship between entrepreneurial passion for founding and growth intention.	Structural Equation Modelling
H6b:	Effectuation mediates the relationship between entrepreneurial passion for developing and growth intention.	Structural Equation Modelling
H7a:	Effectuation mediates the relationship between Entrepreneurial opportunities and growth intention.	Structural Equation Modelling
H7b:	Effectuation mediates the relationship between Entrepreneurial self-efficacy and growth intention.	Structural Equation Modelling

4.9 Content Analysis

Content analysis is a systematic procedure of examining communication text for patterns that can be categorised in order to make valid inferences from text (Given & Saumure, 2008; Weber, 2009). Content analysis is one of the major techniques in qualitative data analysis that offers flexibility in the way the content of text data are analysed, using different approaches such as conventional, directed, or summative approach (Lacy et al., 2015; Helgevold & Moen, 2015). With this flexibility, researchers have applied content analysis in various fields and different ways. Weber (2009) asserted that content analysis could be used to achieve many purposes like disclosing differences in communication content from different nations; coding open-ended questions in surveys; identifying the aims and other characteristics of the communicator; determining the psychological state of individuals or groups; describing behavioural and attitudinal responses to communications; reflecting cultural patterns of groups, institutions, or societies; revealing the focus of individual, group, institutional, or societal attention; and describing trends in communication content. The nature of this study necessitates a qualitative data analysis technique that could recognise differences and patterns across actors as well as the feelings and emotions of the respondents. The sequence of the content analysis employed in this research using NVivo was as follows:

i. Text imported from Qualtrics into the NVivo after which data were cleansed.
ii. Reading through the text for an overview of the data. With the usage of query feature on the explore tab in NVivo, the researcher got the glimpse of responses from the open-ended questions having a list of frequently used words that might lead to emerging themes.
iii. Coding of text to capture themes from the responses as directed by the research questions, and this was done inductively.
iv. Coding and recoding for the purpose of consistency and coverage.
v. Grouping of themes and removing redundant themes.
vi. Validity check of the themes and categories by researcher, entrepreneurship scholars and supervisors.
vii. A careful review of themes and categories to observe meaningful patterns.
viii. Interpretations of observed patterns according to extant literature.

4.10 Chapter summary

The main objectives of this chapter were to discuss the research philosophy and provide justification for the philosophical position of the study. It also describes the choice of mixed method and reasons for choosing the research design; followed by a detailed discussion of the operationalisation of variables, the survey administration method and description of the study's sample frame. A cross-sectional survey design was used in collecting data with Likert scales and open-ended questions for the quantitative and qualitative data, respectively. The subsequent chapter discusses in detail the quantitative data analysis using structural equation modelling technique in testing the research model.

Chapter Five: Research Application: Quantitative Analysis

5.1 Chapter outline

This chapter discusses the quantitative method used in this study. Quantitative data collected were analysed to test the hypothesised relationships in chapter three. First, data preparation process such as entering and editing of the data as well as detecting normality issues and multicollinearity were carried out. This is followed by conducting exploratory factor analysis (EFA) for the identification of dimensionality of the data giving a set of outputs that reflect a single underlying factor or construct. Examining how well these items explain the construct, Cronbach's alpha was performed measuring the scales' reliability. Additionally, confirmatory factor analysis (CFA) was conducted using AMOS 25, which produced a more stringent estimation of reliability as well as testing the unidimensionality of the scales. Finally, structural equation modelling was performed to test the hypothesised relationships.

5.2 Data Analysis

Data analysis is "the application of reasoning to understand the data that have been gathered. In its simplest form, the analysis may involve determining consistent patterns and summarising the relevant details revealed in the investigation" (Zikmund et al., 2010, p.70). Some vital steps are necessary for the process which includes "identifying an issue, asking meaningful questions, developing answers to these questions through examination and interpretation of data and, finally, communicating the results" (Binder & Roberts, 2006, p. 2771). Therefore choosing an appropriate analysis technique in accordance with the aims and questions is paramount in the process. For this study, two types of data were collected (quantitative and qualitative data), and they were treated differently.

5.3 Quantitative Data Analysis

5.3.1 Data Editing and Entry

Data were imported directly from Qualtrics into SPSS with limited editing work needed. Numerical values were assigned to the answers automatically as they appear on data view of SPSS, but in the variable view, there was a need to assign a label and name to each of the questions as well as labelling those values. There was no case of missing value as a feature from Qualtrics called "force response" made this possible. This required that all questions on a page are answered before moving to the next, hence, all questionnaires are completely filled before submission. Elementary descriptive statistics such as means, standard deviations, ranges and frequency distributions were generated to assess the integrity of the data (Pallant, 2013).

5.3.2 Detecting Normality Issues

Normality of data is one of the basic assumptions and important foundation in multivariate analysis (Tabachnick & Fidell, 2012). Normality tests are conducted to examine the shape of the data distribution, and this can be measured by statistical methods such as Kurtosis and Skewness test as well as the Kolmogorov and Shapiro method (Hair et al., 2014; Tabachnick & Fidell, 2012). To ensure data normality in this study, an analysis was conducted to examine skewness and kurtosis. As recommended, the threshold of ±2 and ±2 for skewness and kurtosis were not violated by any of the Likert scale items which strengthen the confidence that the data is normally distributed (Field, 2009).

5.3.3 Multicollinearity

The results of structural equation modelling can lose their credibility if multicollinearity exists. Multicollinearity is when there is overlapping in the variance explained independent variable by two or more independent variance (Field, 2009). "As multicollinearity increases, it complicates the interpretation of the variate because it is more difficult to ascertain the effect of any single variable, owing to their interrelationships" (Hair et al., 2014, p.2). It occurs with the existence of a strong correlation among independent variables and is diagnosable.

A popular way of spotting multicollinearity is to check the correlation matrix of all of the independent variables and identify those that correlate very highly, usually anything above 0.8 is suspicious (Field, 2009). For this study, the correlation among variables (Table 5.2) is below 0.8. Timothy (2015) suggests that the absence of high correlation is not an assurance of a lack of collinearity. Assessing a variance inflation factor (VIF) has been recommended as a more stringent check.

A large value(s) of VIF and small tolerance's value(s) indicate the presence of multicollinearity. Any VIF value of more than 10 signals serious problem in the data (Cohen et al., 2014; Myers & Myers, 1990). Hair et al. (2014) argue that researchers need to be more restrictive when sample sizes are small because of the increase in standard errors due to multicollinearity thereby suggesting values between 3 to 5. For tolerance which is the reciprocal of VIF, Field (2009) believes that values below 0.1 are an indication of serious problems, however, Menard (2002) recommends that values of less than 0.2 call for attention.

Conducting collinearity diagnostics with SPSS 25 using multiple linear regression, the data for this study look sound. From Table 5.1, first, the independent variables and dependent variable were examined with the highest VIF value of 2.045 and the lowest tolerance value of 0.489. Second, the independent variables were examined against the mediator with the highest VIF value being 2.045 and the lowest tolerance value of 0.489. Third, the independent variables with the mediating variable examined against the dependent variable with the VIF highest value of 4.650 and the lowest tolerance value of 0.215. In the three instances, the VIFs are less than 5 and tolerance greater than 0.2, therefore, the data is largely free from multicollinearity.

5.4 Validity and Reliability of the Research Instrument

The credibility of any research finding is established on the reliability and validity of the research instrument (Neuman, 2014). Reliability "is an assessment of the degree of consistency between multiple measurements of a variable" (Hair et al., 2014, p123). On the other hand, validity confirms the suitability of a scale for the measurement of a particular concept (Sekaran & Bougie, 2003). For this study, Cronbach's alpha and split-half model were used. Cronbach's alpha is the most used method for assessing scale's reliability (Field, 2009)

with many scholars recommending 0.7 cut-off point (Gliem & Gliem, 2003; Helms et al., 2006; Tavakol & Dennick, 2011), however, a reliability coefficient of 0.6 may be acceptable in exploratory research (Hair et al., 2014). Split-half reliability divides the data into two halves and reflects on the consistency between the splits, although the estimates depend largely on the arrangement of the items (Sekaran & Bougie, 2003; DeVellis, 2016).

Content and face validity is thought to have been satisfied as the scales used for this study are taken from entrepreneurship literature that captures the relevance of the construct being measured. In addition, the scales were given to experts in the field for evaluation. Construct validity (convergent and discriminant) is assessed in the later section under factor analysis.

Table 5.1: Variance Inflation Factor

First case				Second case				Third case			
Dependent	Independent	Tolerance	VIF	Dependent	Independent	Tolerance	VIF	Dependent	Independent	Tolerance	VIF
Growth intention	Passion for developing	0.599	1.668	Effectuation	Passion for developing	0.599	1.668	Growth intention	Effectuation	0.215	4.650
	Entrepreneurial self-efficacy	0.536	1.867		Entrepreneurial self-efficacy	0.536	1.867		Passion for developing	0.571	1.750
	Passion for founding	0.489	2.045		Passion for founding	0.489	2.045		Passion for founding	0.341	2.933
	Entrepreneurial opportunities	0.499	2.005		Entrepreneurial opportunities	0.499	2.005		Entrepreneurial self-efficacy	0.444	2.250
									Entrepreneurial opportunities	0.449	2.227

Table 5.2: Descriptive and Correlation Statistics

Variables	Mean	SD	1	2	3	4	5	6	7	8	9	10	11	12	13
1.Age	3.63	0.684	1												
2.Number of employee	1.80	1.034	-0.236**	1											
3.Gender	1.62	0.487	0.232**	-0.027	1										
4.Academic qualification	2.05	0.971	0.033	-0.073	0.048	1									
5.Industry	3.69	1.203	-0.087*	-0.095*	-0.213**	0.023	1								
6.Company's age	3.19	1.118	0.383**	0.057	0.220**	-0.047	-0.174**	1							
7.Country	1.41	0.492	0.374**	0.037	0.280**	-0.019	-0.199**	0.442**	1						
8.Effectuation	3.050	0.413	0.075	0.127**	0.043	0.019	-0.067	0.014	0.121**	1					
9.Growth intention	3.342	0.780	-0.058	0.355**	0.060	-0.044	-0.140**	-0.039	0.163**	0.526**	1				
10.Passion for developing	3.765	0.802	0.024	0.293**	0.038	-0.067	-0.076	0.047	0.246**	0.615**	0.681**	1			
11.Entrepreneurial self-efficacy	3.998	0.657	0.036	0.039	0.089*	0.050	-0.018	0.019	0.059	0.709**	0.274**	0.419**	1		
12. Passion for founding	4.078	0.783	0.117**	0.095*	0.131**	0.019	-0.124**	0.028	0.245**	0.790**	0.497**	0.622**	0.511**	1	
13.Entrepreneurial opportunities	4.011	0.652	0.120**	-0.040	0.038	0.019	-0.048	0.060	0.086*	0.709**	0.204**	0.414**	0.654**	0.567**	1

n=528 *p<.05; **p<.0

5.5 Demographic Characteristics of the Sample

Table 5.3 shows the distribution of respondents by their age. About 0.9% of the respondents were less than twenty years of age, while about 8.9% are within 21-30 years. Those participants within age 31-40 years were about 15.9%, and participants with age 41 years and above were about 74.2%. The distribution of participant's gender shows that 38.4% of the participants are female, while about 61.6% are male. In terms of academic qualification, 42% of the respondents have a university or college degree, 32.6% have secondary education and about 13.3% have a postgraduate degree while 12.1% have other forms of qualification. Analysis of respondents by industries show that 34.8% are from the professional industries, followed by other with 29.7% and 16.9% are from wholesale/retail, while 6.6% represents the primary or basic sector.

Table 5.3: Characteristics of the Sample

Characteristics	Frequency Counts	Percentage (%)
Age (N=528)		
Less than 20 years	5	0.9
21 – 30 years	47	8.9
31 – 40 years	84	15.9
41 years and above	392	74.2
Gender (N=528)		
Female	203	38.4
Male	325	61.6
Academic Qualification (N=528)		
Secondary Education	172	32.6
University or College Degree	222	42.0
Postgraduate Degree	70	13.3
Other	64	12.1
Industry (N=528)		
Basic or Primary Sector	35	6.6
Manufacturing	63	11.9
Wholesale/Retail	89	16.9
Professional Industries	184	34.8
Other	157	29.7
Numbers of Employees (N=528)		
Less than 5 employees	286	54.2
6 – 10 employees	123	23.3
11 – 15 employees	59	11.2
16 – 19 employees	60	11.4
Company's Age (N=528)		
Less than 5 years	69	13.1
6 – 10 years	81	15.3
11 – 15 years	57	10.8
16 years and above	321	60.8
Countries (N=528)		
Australia	311	58.9
New Zealand	217	41.1

Table 5.3 indicates the distribution of respondents' firm by the number of employees. A total of 54.2% have less than five employees; 23.3% have 6-10 employees; 11.2% have 11-15 employees, and 11.4% have 16-19 employees. By nationality, about 58.9% of respondents are Australians, and the remaining 41.1% are New Zealanders. In terms of their company's age, 13.1% were less than five years old; 15.3% were 6-10 years old; 10.3% were 11-15 years old, while 60.8% were 16 years and above.

Table 5.4: Reliability of Purified Scales

Scale	Number of items	Cronbach's Alpha	Guttman split-half Coefficient
GROWTH INTENTION			
Technological Improvement	6	0.861	0.842
Resource Aggregation	5	0.820	0.773
Market Expansion	4	0.872	0.834
Process Improvements	4	0.893	0.880
ENTREPRENEURIAL PASSION			
Passion for inventing	5	0.879	0.847
Passion for founding	4	0.809	0.828
Passion for developing	4	0.847	0.871
ENTREPRENEURIAL MOTIVATION			
Need for achievement	2	0.665	0.665
Entrepreneurial opportunities	6	0.902	0.839
Entrepreneurial self-efficacy	5	0.742	0.680
EFFECTUATION			
Experimentation	3	0.706	0.654
Affordable loss	3	0.861	0.774
Flexibility	4	0.784	0.777
Pre-commitments	3	0.756	0.660

From Table 5.4 above, many of the scales examined show acceptable Cronbach's alpha exceeding 0.7 except need for achievement and experimentation. The reliability score for need for achievement and experimentation were very low, scoring 0.285 and 0.388 respectively. This is caused by the negatively worded items in the scales. For experimentation, the second

item on the list was negatively worded ("The product/service that I now provide is essentially the same as I originally planned") and was dropped leading to an increase in Cronbach's alpha to 0.706 while the second and fourth items on need for achievement scale were negatively worded ("I find it hard to understand people who always keep on striving for new goals although I have already achieved all success they could have imagined"; "I am so satisfied with what I have attained in my life that I think that now I can confine myself to keeping what I already have" and were dropped resulting in an increase in Cronbach's alpha to 0.665 which was still acceptable. The Guttman split-half coefficient for all purified scales are relatively close to reliability scores obtained through Cronbach's alpha, and it is indeed satisfactory.

5.6 Factor Analysis

Factor analysis is a multivariate technique that can be used to confirm the underlying hypothetical constructs or factors that have been operationally defined as accounting for the relationships between variables (Foster, Barkus, & Yavorsky, 2006; Sekaran & Bougie, 2003). When examining underlying constructs through a theoretical lens or when there is a need to understand the underlying structure, factor analysis is often useful in developing and testing theories (Tabachnick & Fidell, 2012). The analysis is considered exploratory (exploratory factor analysis) when identifying hypothetical constructs in a data set while it is considered confirmatory (confirmatory factor analysis or CFA) when confirming the existence of these hypothetical constructs in a fresh set of data (Foster et al., 2006; Rayov & Marcoulides, 2000). In this study, factorial validity of theoretical construct was examined by a first-order and second-order CFA model which is capable of testing the multidimensionality of a theoretical construct as well as testing for the equivalence of latent mean structures across the two groups. This was done by the implementation of two major strategies: factor identification and model identification.

5.6.1 Exploratory Factor Analysis (EFA)

This is "the common form of factor analysis which finds the major dimensions of a correlation matrix using weighted combinations of the variables in the study. It identifies combinations of variables which can be described as one or more superordinate variables or factors" (Dennis & Cramer, 2011, p. 608). Through EFA, researchers gather information about

the factors structure that best represent the data and the interrelationships among a set of variables (Pallant, 2011). It allows measured variable loads distinctly, leading to a simple structure which has smaller loadings on other factors that are loading less than 0.4 (Hair et al., 2014).

In order to conduct EFA, decisions about the extraction method and rotation are crucial because it will affect the result generated from the analysis. Since there is no normality issue with the data for this study, maximum likelihood estimation was chosen as Fabrigar et al. (1999: 277) argued that for data that are distributed normally, maximum likelihood estimation remains the best choice because "it allows for the computation of a wide range of indices of the goodness of fit of the model [and] permits statistical significance testing of factor loadings and correlations among factors and the computation of confidence intervals.". Also, maximum likelihood algorithms are the default estimator in AMOS (analysis of a moment structures), the statistical software used for structural equation modelling in this study. For rotation, oblique methods which produce factors that are correlated are preferred in this study and Promax which was oblique has been chosen for the analysis as there is no significant difference in results among oblique methods (Costello & Osborne, 2005).

One of the critical decisions to be made when conducting EFA is deciding how many factors to retain at the end of the analysis. It is recommended that any factor with an eigenvalue of less than one should not be retained (Kaiser, 1960). In addition, the scree plot was also observed to identify when factors are above the eigenvalue of one.

5.6.2 Exploratory Factor Analysis of Growth Intention Items

Exploratory factor analysis was conducted to examine the factor structure among 19 items related to growth intention. Factor analysis produced three factors which are in line with the literature. A fourth factor (process improvement) was introduced during conceptualisation because the study was interested in examining growth intention in four areas namely: "Technological Improvement", "Resource Aggregation", "Market Expansion" and "Process Improvement". However, the added factor loaded on other factors, therefore, process improvement (GIPI 1-4. See Table 4.4) was dropped from the factor analysis. There were cross-loadings on the other factors, and after thoughtful consideration, those items that loaded

significantly on more than one factor were dropped. For "Technological Improvement", items five and six were dropped ("Expanding Current Facilities"; "Adding Specialized Employees"); for "Resource Aggregation", item one and five were dropped ("Expanding Advertising and Promotion"; "Researching New Markets") and for "Market Expansion", item three was dropped ("Adding Operating Space"). Afterwards, the factorability requirement of the overall item's sample adequacy was examined by the KMO and Bartlett's test of sphericity. The results as shown in Table 5.5 reveals the value of the KMO as 0.878 which is commendable and Bartlett's test of sphericity ($\chi 2=2572.66$, $p<0.001$) implying that the data is suitable for factorisation. The total percentage of variance explained by the three factors was 72.5%, which is above the 60% recommendation (Hair et al., 2014).

Table 5.5: EFA for Growth Intention

Items' Label	Technological Improvement	Market Expansion	Resource Aggregation	Communalities
Upgrading computer systems	**0.916**	-0.061	-0.035	0.746
Replacing present equipment	**0.841**	-0.006	-0.033	0.673
Computerizing current operations	**0.637**	0.007	0.165	0.555
Acquiring new equipment	**0.573**	0.198	-0.015	0.487
Selling to a new market	-0.088	**0.952**	0.002	0.819
Adding a new product or service	0.154	**0.724**	-0.073	0.608
Expanding distribution channels	0.017	**0.713**	0.116	0.637
Seeking additional financing	-0.123	0.038	**0.830**	0.626
Seeking professional advice	0.099	-0.038	**0.735**	0.594
Offsite training for employees	0.100	0.020	**0.577**	0.423
Eigenvalue	4.934	1.250	1.069	
% of variance	49.336	12.502	10.693	
Cumulative	49.336	61.838	72.532	
KMO			0.878	
Bartlett's test of sphericity			<.001	

5.6.3 Exploratory Factor Analysis of Entrepreneurial Passion

The 13 entrepreneurial passion items were factor analysed to identify underlying constructs. The items loaded into two distinct factors, as shown in Table 5.6 and the total variance explained is 60.8% which is slightly above the 60% recommendation. In extant literature, entrepreneurial passion was found to load into three factors, namely: the passion for inventing, passion for founding and passion for developing (Cardon et al., 2013). Passion for inventing could not load separately, but loaded on another factor and was dropped. Two items in passion for developing (I really like finding the right people to market my product/service to; "Nurturing and growing companies is an important part of who I am") and one in passion for founding ("Establishing a new company excites me") cross-loaded as well and were dropped and the factor analysis rerun.

The KMO measure of sample adequacy (0.725) can be described as good (Hutcheson & Sofroniou, 1999) and Bartlett's test of sphericity (χ_2=1017.58, p<0.001) confirming the suitability of the data for factorisation. The total percentage of variance explained is 77.62%, which is above 60% recommended (Hair et al., 2014).

Table 5.6: EFA for Entrepreneurial Passion

Items	Passion for founding	Passion for developing	Communalities
Owning my own company energizes me.	**0.827**	0.022	0.703
Being the founder of a business is an important part of who I am.	**0.795**	-0.094	0.566
Nurturing a new business through its emerging success is enjoyable.	**0.591**	0.165	0.476
Assembling the right people to work for my business is exciting.	0.014	**0.855**	0.744
Pushing my employees and myself to make our company better motivates me.	0.004	**0.842**	0.713
Eigenvalue	2.800	1.082	
% of variance	55.992	21.632	
Cumulative	53.980	77.624	
KMO		0.725	
Bartlett's test of sphericity		<0.001	

5.6.4 Exploratory Factor Analysis of Entrepreneurial Motivation

Exploratory factor analysis was conducted to examine the factor structure among 13 items related to entrepreneurial motivation. The output from the factor analysis in Table 5.7 showed items loading into two factors which are contrary to conceptualisation. It is expected that these items will load into three factors namely: "entrepreneurial self-efficacy", "entrepreneurial opportunities" and "need for achievement", however, need for achievement loaded on another factor with the total percentage of variance explained at 55.2% falling below the 60% recommendation. An item ("Managing money") on a factor had a communality that is very low and one other item ("Being creative") cross-loaded strongly on another factor. These items were dropped and the factor analysis rerun. The KMO measure of sample adequacy (0.885) can be described as great (Hutcheson & Sofroniou, 1999) and Bartlett's test of sphericity (χ_2=2390.165, p<0.001) confirming the suitability of the data for factorisation. The total percentage of variance explained is 66.7% which is above 60% recommended (Hair et al., 2014).

Table 5.7: EFA for Entrepreneurial Motivation

Items	entrepreneurial opportunities	entrepreneurial self-efficacy	Communalities
I created a solution for the problem.	**0.880**	-0.106	0.687
I made a solution for the problem.	**0.845**	-0.080	0.648
I developed an answer to the problem.	**0.789**	0.034	0.652
I found a solution to the problem.	**0.729**	0.079	0.598
I discovered the solution to the problem.	**0.693**	0.086	0.550
I realized there was a solution.	**0.690**	0.073	0.535
Being a leader.	0.034	**0.795**	0.662
Getting people to agree with you.	-0.067	**0.745**	0.507
Being able to solve problems.	0.234	**0.406**	0.320
Eigenvalue	4.725	1.275	
% of variance	52.496	13.796	
Cumulative	52.496	66.665	
KMO		0.885	
Bartlett's test of sphericity		<0.001	

5.6.5 Exploratory Factor Analysis of Effectuation

Exploratory Factor Analysis was conducted to determine the factor structure among 13 items relating to effectuation. The result of the analysis in Table 5.8 shows that these items loaded into four distinct factors as was initially conceptualised. One item each from pre-commitment, flexibility and experimentation ("My focus was rather on the reduction of risks by approaching potential partners and customers"; "I was flexible and took advantage of opportunities as they arose"; "I experimented with different products and/or business models") were dropped for cross-loading strongly on other factors. The KMO measure of sample adequacy (0.780) could be described as good (Hutcheson & Sofroniou, 1999) while Bartlett's test of sphericity ($\chi 2=1683.797$, $p<0.001$) showed the suitability of the data for factorisation. The total percentage of variance explained is 68.1%, which is above 60% recommended (Hair et al., 2014).

Table 5.8: EFA for Effectuation

Items	Affordable Loss	Flexibility	Pre-commitments	Experimentation	Communalities
I was careful not to risk more money than I was willing to lose with the business idea.	**0.899**	-0.039	0.008	-0.028	0.764
I was careful not to risk so much money that could put me in real trouble financially if things didn't work out.	**0.787**	-0.028	0.014	0.107	0.670
I was careful not to commit more resources than I could afford to lose.	**0.778**	0.101	-0.046	-0.085	0.640
I allowed the business to evolve as opportunities emerged.	-0.019	**0.761**	-0.069	0.080	0.560
I adapted what I was doing to the resources I had.	0.003	**0.752**	-0.015	-0.027	0.552
I avoided courses of action that restricted my flexibility and adaptability.	0.139	**0.398**	0.193	-0.042	0.333
I used a substantial number of agreements with customers, suppliers, other organizations and people to reduce the amount of uncertainty.	-0.038	0.020	**0.816**	-0.048	0.625
I used pre-commitments from customers and suppliers as often as possible.	0.031	-0.045	**0.603**	0.114	0.436
I tried a number of different approaches until I found a business model that worked.	0.061	-0.020	-0.017	**0.781**	0.607
The product/service that I now provide is substantially different than I first imagined.	-0.081	0.061	0.055	**0.563**	0.357
Eigenvalue	3.537	1.770	1.031	0.951	
%of variance	35.374	17.700	10.311	9.510	
Cumulative	35.374	53.074	63.384	72.894	
KMO				0.780	
Bartlett's test of sphericity				<0.001	

5.7 Confirmatory Factor Analysis

Structural equation modelling procedures involve first the analysis of the measurement model and followed by the structural path model. The measurement model links the variables to the constructs while structural path model associates construct to other constructs (Iacobucci, 2009). Interestingly, confirmatory factor analysis (CFA) enables researchers to examine how well the measured variables relate to the constructs. CFA is used to present a confirmatory assessment of the measurement theory (Cramer, 2004).

Measurement theory postulates a sequence of relationships that propose how observed measures or indicators contribute to a latent construct that is not measured directly (Brown, 2006). CFA is useful in four main areas: (1) "psychometric evaluation of measures"; (2) "construct validation"; (3) "testing method effects"; and (4) "testing measurement invariance" (Harrington, 2009). In this study, CFA is being used to assess construct validity (convergent and discriminant validity). The application includes the examination of first-order factor as well as second-order factor or hierarchical confirmatory factor analysis models having at least one construct as a second-order factor that is not directly captured by any observed measures (Byrne, 2010). This second-order factor, which is exogenous exhibits direct effects on the first-order factors, which have observed measures while these first-order factors are now endogenous and therefore do not have unanalysed relationships with each other (Kline, 2011).

Convergent validity is the degree to which different assessment procedures concur in their measurement of the same construct, that is, a set of indicators designed to measure the same construct shows convergent validity if their inter-correlations are at least reasonable in magnitude (Kline, 2011). Since reliability is also seen as evidence of convergent validity, composite reliability (CR) and the average variance extracted (AVE) were assessed for this study. AVE of 0.5 or higher is a good rule of thumb suggesting acceptable convergence and CR of 0.7 or higher suggests adequate reliability, however, a score between 0.6 and 0.7 may be acceptable, if other indices in a model's construct validity are good (Hair el at., 2014).

The degree to which separate assessment procedures are divergent in their measurement of different constructs is referred to as discriminant validity (Byrne, 2010). A set of indicators designed for measurement of different constructs will show discriminant validity provided that

their inter-correlations are not too high (Kline, 2011). Ideally, these values should show minimal convergence, hence, discriminant validity reveals the distinctiveness of a construct from other constructs (Hair et al., 2014). It has been recommended that a more rigorous approach for assessing discriminant validity is the comparison of the square of the correlation estimate with the average variance-extracted values between two constructs (Fornell & Larcker, 1981). The rule of thumb states that the squared correlation estimate should be lower than the variance extracted estimates constructs (Hair et al., 2014). One major cause of poor discriminant validity resulting from high factor correlations has been identified as having too many factors in a model, while poor convergent validity may be an indication that the model does not have enough factors (Brown, 2006).

Fit indices

To determine how well the models fit the data in both the measurement and structural models, a number of fit indices are assessed. According to Kline (2011), four categories of fit indices have been discussed over time (Absolute fit indices, Incremental fit indices, Parsimony-adjusted indices and Predictive fit indices), however, he suggests that these are not mutually exclusive as some are often categorised under more than one group. There are different analytical software which produces some or all of the indices used to assess goodness-of-fit. This study used AMOS 25 for data analysis, therefore the overall model fitness was assessed primarily with the Chi-square statistic, comparative fit index (CFI), standardized root mean residual (SRMR) and the root mean square of approximation (RMSEA).

Absolute fit indices: Reveal the level of agreement between the researcher's model and sample data.

$\chi 2$ STATISTIC: it assesses the extent of the difference between fitted covariance matrices and the sample (Hu & Bentler, 1999). Given that $\chi 2$ is always affected by sample size, it should never be used as a stand-alone measure of fit (Timothy, 2015). But scholars have recommended, χ^2 /d.f. instead and a value of less than four is considered acceptable with less than three considered good fit (Anderson & Gerbing, 1988; Kline, 2011).

GOODNESS-OF-FIT INDEX (GFI): was actually introduced to replace $\chi 2$. As a result, GFI is less sensitive to sample size (Iacobucci, 2010), despite the fact that N was excluded from the

formula, this statistic is still sensitive to sample size resulting from the effect of N on distribution of sample (Hair et al., 2014). It accounts for the level and presence of variances and covariances in the model showing the similarity between the proposed model and a perfect one. 0.9 is thought to be acceptable (Hooper et al., 2008; Hu & Bentler, 1999)

ROOT MEAN SQUARE ERROR OF APPROXIMATION (RMSEA): It shows the fitness of a model to a population making calculated effort to correct for sample size and model complexity. A value of 0.05 is acceptable (Hu & Bentler, 1999).

STANDARDIZED ROOT MEAN RESIDUAL (SRMR): provides the standardised discrepancy between the predicted correlation and observed correlation, a value less than .08 is seen as a good fit (Hu & Bentler, 1999).

Incremental fit indices: Assessment of the comparison between the estimated model and some alternative baseline models.

Comparative Fit Index (CFI): compares the existing model's fit with simple idealised model values above .90 are usually associated with a model that fits well (Hair *et al.*, 2014).

These common criteria for fit indices should be taken with caution as scholars have recently found potential limitation with strict adherence to these cut-offs and may simply not work because many things affect fit indices (Chen et al., 2008; Fan & Sivo, 2007, 2009; Heene et al., 2012; Marsh et al., 2004; McNeish et al., 2018). Reporting a variety of indices is imperative "because different indices reflect a different aspect of model fit" (Hooper et al., 2008, p56).

On choosing what to report, Hayduk et al. (2007) and Kline (2011) agree that despite the deficiencies with Chi-Square, it should be reported along with its degree of freedom and the p-value. Additionally, Hu & Bentler (1999) also recommended a two-index presentation principle, necessitating the report of SRMR with any of NNFI (TLI), RMSEA or CFI and Boomsma (2000) suggestions were also similar to that.

5.7.1 CFA for Growth Intention: First Order and Second Order

Before running the measurement model, individual models for each factor that are in their second order in the measurement model were fitted. The goodness of fit statistics (χ_2=116.308, d.f.=32, χ_2/d.f.=3.635, CFI=0.967, SRMR=0.047, RMSEA=0.071) for the first order CFA for growth intention show that goodness-of-fit indices such as χ_2/d.f., CFI, SRMR and RMSEA significantly pass the cut-off value.

Table 5.9: Validity Measures for Growth Intention

Factor	**CR**	**AVE**	**GIME**	**GITI**	**GIRA**
Market Expansion (GIME)	0.861	0.675	**0.821**		
Technological Improvement (GITI)	0.858	0.603	0.612***	**0.776**	
Resource Aggregation(GIRA)	0.775	0.536	0.626***	0.588***	**0.732**

Significance of Correlations: † p < 0.100; * p < 0.050; ** p < 0.010; *** p < 0.001

Table 5.9 shows that there is no validity concern as CR and AVE for all factors are above 0.7 and 0.5 cut-off marks, respectively, satisfying for convergent validity adequacy. The square roots of AVE in the diagonal for all the factors are greater than correlations among them, thus providing evidence for discriminant validity.

After first order CFA for growth intention was conducted, further analysis was performed with the second-order CFA for the achievement of required model fitness. The results of second-order confirmatory factor analysis also indicate three components confirming the composite indicators of growth intention. The model fit the data in an acceptable level as follows: (χ2=116.308, d.f.=32, χ2/d.f.=3.635, CFI=0.967, SRMR=0.047, RMSEA=0.071).

The results showed that goodness-of-fit indices such as $\chi 2$/d.f., CFI, SRMR and RMSEA significantly pass the cut-off value. The market expansion subscale in growth intention dimension has the highest factor loading among all three subscales with a factor loading of 0.81, followed by resource aggregation with 0.78 and technological improvement with a factor loading of 0.76.

5.7.2 CFA for Effectuation: First Order and Second Order

The first order CFA for effectuation produced goodness of fit statistics in good state (χ_2=90.326, d.f.=29, χ_2/d.f.=3.115, CFI=0.963, SRMR=0.045, RMSEA=0.063). However, from Table 5.10, there are few validity issues. The AVE for flexibility and experimentation are slightly below 0.5 cut-offs, and the CR for pre-commitment and experimentation are slightly below the 0.7 recommendation. For discriminant validity, the square root of their AVE in the diagonal is greater than the correlation among them, therefore confirming evidence of discriminant validity.

Table 5.10: Validity Measures for Effectuation

	CR	AVE	Affordable loss	Flexibility	Pre_commitment	Experimentation
Affordable loss	0.863	0.678	**0.823**			
Flexibility	0.717	0.460	0.615***	**0.678**		
Pre-commitment	0.677	0.512	0.253***	0.369***	**0.716**	
Experimentation	0.632	0.463	0.178***	0.299***	0.568***	**0.681**

Significance of Correlations: † p < 0.100; * p < 0.050; ** p < 0.010; *** p < 0.001

Second-order confirmatory factor analysis was conducted to test the fitness of a model with a second-order factor comprising the first-order factors obtained previously by means of confirmatory factor analysis. The results of second-order confirmatory factor analysis in Table 5.10 also indicate four components confirming the composite indicators of growth intention. The model fit the data in an acceptable level as follows: (χ_2=141.997, d.f.=31, χ_2/d.f.=4.581, CFI=0.933, SRMR=0.075, RMSEA=0.082). The results showed that goodness-of-fit indices such as χ_2/d.f., CFI and SRMR significantly pass the cut-off value. Flexibility subscale has the

highest factor loading with 0.88 while affordable loss has factor loading of 0.67, followed by pre-commitment and experimentation with factor loading of 0.46 and 0.38, respectively.

5.8 Integrated Measurement Model

From this integrated model, many conclusions can be drawn. Measurement models through CFA have been tested and reported in the measurement validation process. In this process, the measurement model fit and construct validity were assessed through CFA. The integrated measurement model was thoroughly examined with the integration of subscales for those factors with a second-order. This integrated measurement model includes six dimensions namely: growth intention, effectuation, passion for founding, passion for development, entrepreneurial self-efficacy and entrepreneurial opportunities.

There is a great deal of evidence that common method bias affects indicator reliability, internal consistency reliability, discriminant validity and convergent validity of the integrated measurement model (Doty & Glick, 1998; MacKenzie & Podsakoff, 2012; Reio, 2010). As recommended by Chang et al. (2010), one of the means to control for the effects of method bias is through statistical control procedures.

The possibility of some built-in bias due to the nature of the data collection was also considered. Data collected by survey in one time period are prone to common method variance (CMV) (Podsakoff, MacKenzie, Lee & Podsakoff, 2003). In order to assess this, Williams et al. (1989) technique adopting the same steps like Tang et al. (2012) was followed. Specific bias test was conducted by adding a common latent factor (CLF) to an estimated full measurement model. The common variance among all indicators in the model is captured by a common latent factor. We compared fit statistics of the model without CLF (χ 2 /df= 2.468; CFI= 0.902; SRMR = 0.069; RMSEA= 0.053) and with CLF (χ 2 /df= 2.468; CFI= 0.902; SRMR = 0.069; RMSEA= 0.053). Interestingly, the two models displayed adequate fit, and there was no improvement in model fit after introducing the CLF, indicating that CMV was not a concern.

The highest composite reliability score is 0.903 for entrepreneurial opportunities, and the lowest is 0.716 for effectuation. CR for all the constructs were all above the cut-off value of .70 (Hair et al., 2014). For average variance estimates (AVE), the highest score is 0.728 for passion for developing, and the lowest is 0.391 for effectuation.

Table 5.11: Model Validity Measures

	CR	AVE	EO	PF	ESE	PD	Growth intention	Effectuation
Entrepreneurial Opportunities (EO)	0.903	0.607	**0.779**					
Passion for Founding(PF)	0.798	0.569	0.500***	**0.754**				
Entrepreneurial Self-efficacy (ESE)	0.752	0.485	0.571***	0.422***	**0.696**			
Passion for Developing (PD)	0.843	0.728	0.368***	0.538***	0.352***	**0.853**		
Growth intention	0.824	0.609	0.169**	0.412***	0.220***	0.585***	**0.780**	
Effectuation	0.716	0.391	0.601***	0.661***	0.581***	0.503***	0.427***	**0.626**

Significance of Correlations: † $p < 0.100$; * $p < 0.050$; ** $p < 0.010$; *** $p < 0.001$

Two of the constructs (Effectuation and Entrepreneurial Self-Efficacy) fell below the 0.50 cut-off mark. By running a model without one (affordable loss) of the subscales on effectuation dimension as well as an item on the entrepreneurial self-efficacy, AVE improved tremendously, but the scales seem to have lost their face validity as they no longer appear to measure constructs (Stenholm & Renko, 2016).

Consequently, they were retained, as Malhotra et al. (2013) maintain that AVE is a very strict way of establishing reliability, notwithstanding, composite reliability alone is sufficient to confirm reliability. The square root of the AVE in the diagonal for effectuation is less than its correlation with, passion for founding. Apart from effectuation, all other constructs show that variance explained among their own items is more than common variance shared with others, thus confirming constructs' uniqueness.

5.9 Structural Equation Modelling

Structural equation modelling (SEM) is a multivariate statistical technique that uses a confirmatory approach to test structural theory originating from some phenomenon (Byrne, 2010). Structural equation modelling does not represent a statistical technique in particular but a family of associated procedures that combine path analysis and factor analysis in examining chains of dependence interactions between exogenous variables and endogenous variables concurrently and providing an explanation of complex patterns in the data (Foster et al., 2006; Ho, 2006; Kline, 2011). Byrne (2010) explained that the term structural equation modelling is of two important parts. First, "the causal processes under study are represented by a series of structural (i.e., regression) equations, and secondly, these structural relations can be modelled pictorially to enable a clearer conceptualisation of the theory under study". Ho (2006) highlighted three distinctive characteristics of Structural Equation Modelling: one, it allows multiple relationships to be examined simultaneously.

Testing multiple models via other techniques such as path analysis by employing conventional multiple regression comes with a number of limitations, the hypothesised relationships among variables (endogenous variable on to the exogenous as well as exogenous variable on to the endogenous) have to be done separately and repeatedly. SEM, on the other hand, can test these hypothesised interrelated dependence relationships in multiple models concurrently because it analyses the model as a whole and not separately allowing calculated statistics to account for the goodness-of-fit of the data to the hypothesised model. Two, it can examine the unobserved (latent) variable in the analysis of the dependence relationships.

Multiple regression can check for relationships among variables that can be measured directly and SEM, on the other hand, can integrate unobserved (or latent) variables in the analysis. Three, it gives better statistical estimation because it accounts for the measurement of error in the process of estimation. At the same time, other univariate and multivariate techniques suppose that there is no error connected with the measurement of variables. In testing the SEM models in this study, five steps were followed logically and sequentially. They are (1) model specification (2) model identification (3) model estimation (4) model testing and (5) model modification (Lomax & Schumacker, 2004; Teo, Tsai, & Yang, 2013).

5.9.1 Direct Effects, Indirect Effects, and Interaction

The correlational effects with dependence relationships were then replaced with a structural model (Hair et al., 2014). Assessing the structural model involves the examination of relationships among constructs. Establishment of association or effect between variables is one of the major preoccupations of scientific research, however, the presence of causal relationship does not lead to more in-depth insight about the phenomenon of interest (Hayes, 2013). "Research that establishes the mechanism or mechanisms by which effects operate or the conditions that facilitate and inhibit such effects deepens our understanding of the phenomena scientists study" (Hayes, 2013, p3). Mechanisms provide the opportunity to understand how effects are being produced and what really effects are, while conditions reveal boundaries that facilitate the occurrence of the effects (Judd, Yzerbyt, & Muller, 2014). Understanding limiting conditions and mechanisms are the goals of moderation analyses and mediation, respectively.

Baron & Kenny (1986) define a mediator as a ''variable, which represents the generative mechanism through which an independent focal variable is able to influence the dependent variable of interest'' (p. 1173). Again, Baron and Kenny define a moderator as ''a qualitative (e.g., sex, race, class) or quantitative (e.g., level of reward) variable that affects the direction and/ or strength of the relation between an independent or predictor variable and a dependent or criterion variable'' (p. 1174).

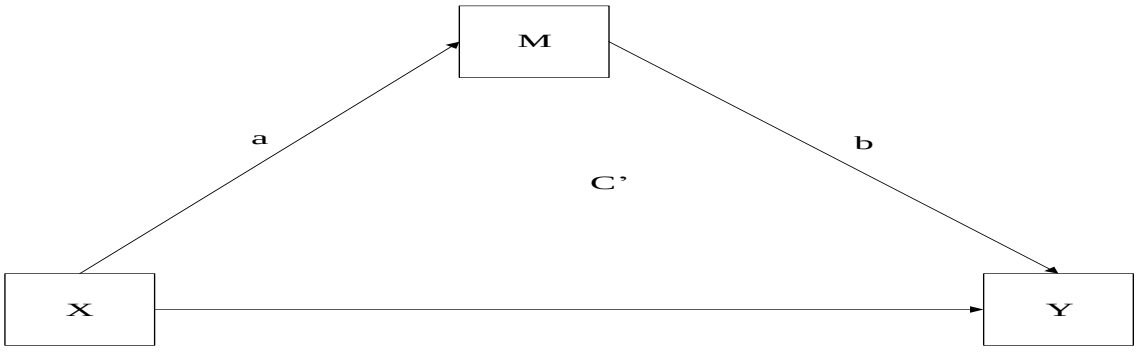

Figure 5.1 **A Simple Mediation Model with a Single Mediator Variable M Causally Located Between X and Y**

Source: Hayes (2013)

These mediating variables (as shown in Figure 5.1) often referred to as mediators are conceptualized as the mechanism through which X affects Y (Hayes, 2013). That is, changes in X lead to changes in one or more mediators M, which in turn leads to changes in Y. The direct effect occurs when each factor (independent variable) influences the dependent variable. In Figure 5.1, the path c′ calculates the direct effect of X on Y. The indirect effect of X on Y through M is the product of a and b. "The total effect of X on Y is computed with the unstandardized regression weight c. The total effect of X on Y can be presented as the sum of the direct and indirect effects: c = c' + ab. Similarly, c' is the difference between the total effect of X on Y and the indirect effect of X on Y through M—that is, c'= c – ab (Preacher & Hayes, 2008). Before mediation analysis could be conducted, Baron & Kenny (1986) suggested that certain conditions be met:

> "A variable functions as a mediator when it meets the following conditions: (*a*) variations in levels of the independent variable significantly account for variations in the presumed mediator (i.e., Path *a*), (*b*) variations in the mediator significantly account for variations in the dependent variable (i.e., Path *b*), and (*c*) when Paths *a* and *b* are controlled, a previously significant relation between the independent and dependent variables is no longer significant, with the strongest demonstration of mediation occurring when Path *c* is zero" (p.1176).

However, subsequent revision by Kenny et al. (1998) and advancement in the field by other scholars (Pardo & Román, 2013; Zhao et al., 2010) argue that some of the aforementioned conditions are not necessary. First, Zhao et al. (2010) contend with Baron and Kenny (1986) assertion that the absence of direct effect makes mediation stronger, stating that the size of the indirect effect should indicate the strength and not the lack of direct effect. Second, the prerequisite for establishing mediation by Baron and Kenny (1986) was also dissolved by Pardo and Román (2013) proclaiming that for effect to be mediated only one condition is important, the significance of the indirect effect a x b. "The path from X to Y that bypasses M (i.e., c0) need not be considered when determining whether M mediates the effect of X on Y because this path is not part of the mediated effect" (Aguinis et al., 2017, p.676).

A relationship between two variables X and Y (as shown in figure 5.2) is said to be moderated when its sign or size is determined by a third variable or set of variables Z. "The

effect of X on some variable Y is moderated by Z if its size, sign, or strength depends on or can be predicted by Z. In that case, Z is said to be a moderator of X's effect on Y, or that Z and X interact in their influence on Y"(Hayes, 2013, p. 208). According to Aguinis et al. (2017) of one the challenges of moderation, analysis is a moderator in categorical or dichotomy form. Due to their uneven sample size across categories, interaction effects are undetected or underestimated. For dichotomous moderating variables, Ro (2012: 955) recommended conducting a multi-group analysis (MGA):

> "When the moderator is categorical, particularly dichotomous, the SEM strategy is relatively straightforward. A multi-group approach can be used in which the relation between the independent and the outcome variables is estimated separately for the multiple groups. Specifically, a constrained model (an assumption of no interaction effect) is compared with an unconstrained model (an assumption of interaction effect). If the unconstrained model is a better fit to the data, there is evidence of moderation (i.e., different relations between the independent and outcome variables across the groups).

Therefore, if there is an interaction effect at the model or global level, further analysis could be conducted to examine individual paths or local interaction effect.

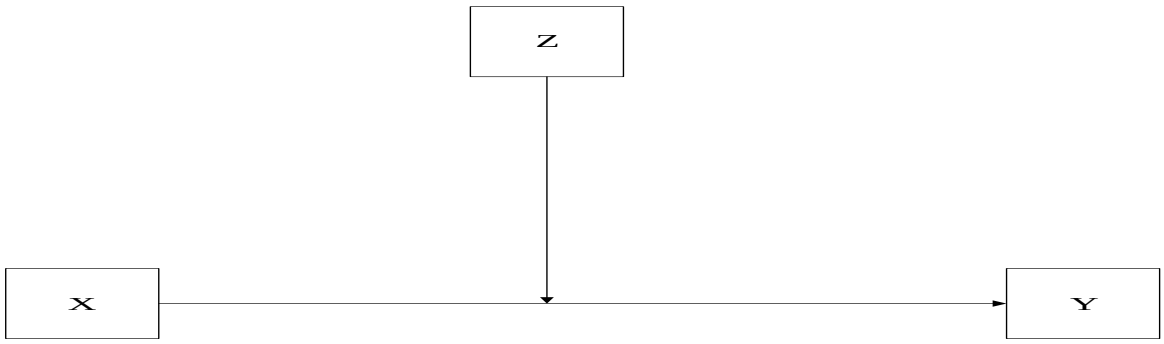

Figure 5.2: A Simple Moderation Model with a Single Moderator Variable M influencing the Size of X's Effect on Y.

Source: Hayes (2013)

5.9.2 Results of Structural Equation Model (SEM)

In the previous section, the measurement models were assessed to ascertain construct validity. With the measurement models satisfying the acceptable cut-off, it is essential that the

structural model is examined for the hypothesised relationship among the variables. Six variables have been assessed in the measurement models. They are growth intention, effectuation, entrepreneurial self-efficacy, entrepreneurial opportunities, passion for founding and passion for developing. All these variables were measured with multiple items. Having confirmed the validity of the constructs, the structural equation model was conducted with the default setting of maximum likelihood (ML) approach in AMOS 25 analytical software. The goodness-of-fit statistics for the structural model were as follows. ($\chi 2$=17.866, d.f.=8, $\chi 2$/d.f.=2.233, CFI=0.995, SRMR=0.034, RMSEA=0.048). Thus, the indices provide adequate proof that the model fits the data acceptably. The outputs of direct, indirect and total effects of paths are shown in Table 5.12.

Table 5.12: Direct, Indirect and Total Effects of Paths

Path	Direct effect	Indirect effect	Total effect
Entrepreneurial self-efficacy ⟶ Growth intention	-0.084	0.118	0.034
Entrepreneurial opportunities ⟶ Growth intention	-0.251	0.096	-0.155
Passion for founding ⟶ Growth intention	0.015	0.184	0.199
Passion for developing ⟶ Growth intention	0.516	0.046	0.562
Effectuation ⟶ Growth intention	0.415	___	0.415
Entrepreneurial self-efficacy ⟶ Effectuation	0.284	___	0.284
Entrepreneurial opportunities ⟶ Effectuation	0.231	___	0.231
Passion for founding ⟶ Effectuation	0.442	___	0.442
Passion for developing ⟶ Effectuation	0.112	___	0.112

Figure 5.3 shows that all structural paths were confirmed except passion for founding to growth intention. The standardised beta coefficients for these hypothesised relationships are shown in Table 5.13. For instance, passion for developing positively influenced growth intention (β=0.516, t=12.911, p<0.01). That is, the more of the developer identity entrepreneurs portray, the higher their intention to grow their businesses. However, passion for founding influence on growth intention was not significant (β=0.015, t=0.301, p<0.01). Table 5.13 also shows that all t-values were significant at less than 1% level. The strongest relationships are passion for developing → growth intention (β=0.516) and passion for founding → effectuation (β=0.442).

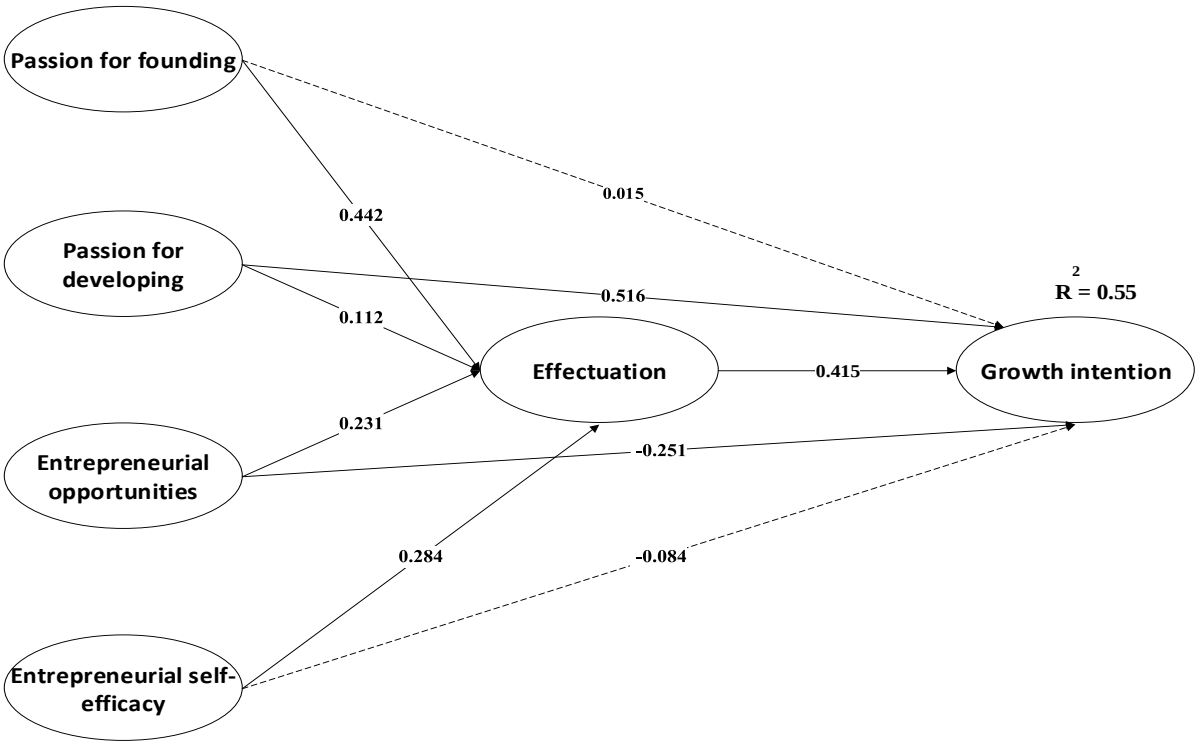

Figure 5.3: Structural Model

Key

Accepted ——————→

Rejected - - - - - - - - - - - - - -

AMOS uses significance level at a specified confidence level for the calculation of the direct, indirect and total effect of each parameter (95% confidence level was set for this analysis). The critical ratio equal to the parameter estimate divided by its standard error which is based on the level of .05, meaning that critical ratio value greater than or equal to 1.96 is accepted as significant at the level of .05.

The standardised direct, indirect and total effects of the exogenous variables on the relevant endogenous variables in the model are provided in Table 5.12. These were estimated using bootstrapping (at 95% confidence interval, bias-corrected, and 2000 bootstrap resample).

Table 5.13: Results of Structural Equation Model for Hypothesised Relationships

Paths			Estimate	S.E.	C.R.	P	Std.β
EFFECTUATION	<---	PD	0.058	0.014	4.139	***	0.112
EFFECTUATION	<---	PF	0.232	0.015	15.476	***	0.442
EFFECTUATION	<---	ESE	0.179	0.017	10.371	***	0.284
EFFECTUATION	<---	EO	0.146	0.018	8.106	***	0.231
GROWTHINTENTION	<---	PD	0.499	0.039	12.911	***	0.516
GROWTHINTENTION	<---	PF	0.015	0.049	0.301	0.537	0.015
GROWTHINTENTION	<---	ESE	-0.098	0.051	-1.907	0.056	-0.084
GROWTHINTENTION	<---	EO	-0.295	0.052	-5.689	***	-0.251
GROWTHINTENTION	<---	EFFECTUATION	0.772	0.118	6.538	***	0.415
Control							
EFFECTUATION	<---	NO OF EMPLOYEES	0.021	0.008	2.537	0.011	0.054
EFFECTUATION	<---	COMPANY AGE	-0.009	0.007	-1.157	0.247	-0.023
EFFECTUATION	<---	ACA.QUAL	0.001	0.009	0.103	0.918	0.002
EFFECTUATION	<---	INDUSTRY	0.005	0.007	0.680	0.497	0.014
GROWTHINTENTION	<---	NO OF EMPLOYEES	0.106	0.023	4.628	***	0.144
GROWTHINTENTION	<---	COMPANY AGE	-0.053	0.020	-2.626	0.009	-0.077
GROWTHINTENTION	<---	ACA.QUAL	-0.055	0.019	-2.939	0.003	-0.086
GROWTHINTENTION	<---	INDUSTRY	0.000	0.023	0.011	0.991	0.000

Notes: Critical ratio greater than 1.96 is significant at * p < .05 level

5.9.3 Hypotheses Testing

The structural equation modelling result was used to analyse relationships between operational constructs. Standardised regression weights and their statistical significance were obtained from the model which validate the rejection or acceptance of a hypothesis.

Table 5.14: Results of Hypotheses Tested in the Structural Model

Hypotheses	Direct effects	Conclusion
H1a:	Entrepreneurial passion for founding is significantly associated with growth intention.	Not supported
H1b:	Entrepreneurial passion for developing is significantly associated with effectuation.	Supported
H2a:	Entrepreneurial opportunities are significantly associated with growth intention.	Supported
H2b:	Entrepreneurial self-efficacy is significantly associated with growth intention.	Not supported
H3a:	Entrepreneurial passion for founding is significantly associated with effectuation.	Supported
H3b:	Entrepreneurial passion for developing is significantly associated with effectuation.	Supported
H4a:	Entrepreneurial opportunities are significantly associated with effectuation	Supported
H4b:	Entrepreneurial self-efficacy is significantly associated with effectuation	Supported
H5:	Effectuation is significantly associated with growth intention.	Supported
	Mediation	
H6a:	Effectuation mediates the relationship between entrepreneurial passion for founding and growth intention.	Supported
H6b:	Effectuation mediates the relationship between entrepreneurial passion for developing and growth intention.	Supported

H7a:	Effectuation mediates the relationship between Supported Entrepreneurial opportunities and growth intention.
H7b:	Effectuation mediates the relationship between Supported Entrepreneurial self-efficacy and growth intention.

Based on the results above and Figure 5.3, of the initial 13 null hypotheses, two were rejected due to lack of evidence, and the rest were accepted.

5.10 Chapter summary

This chapter reports the results of the quantitative data analysis performed to test the hypothesised relationships from the research model. The earlier stage of the analysis focused on data preparation, entry, coding and editing. It was followed by the overview of the demographic characteristics of the sample. Data normality were checked, using Kurtosis and Skewness. Afterwards, exploratory and confirmatory factor analyses were conducted. Collinearity diagnostics were performed, and variance inflation factor (VIF) shows that there was no evidence of multicollinearity. Accordingly, all hypotheses were tested and, nine of the thirteen support the hypothesised relationships. The results show that entrepreneurial passion for developing is directly and indirectly related to growth intention through effectuation. Although entrepreneurial passion for founding is not directly associated with growth intention, it is indirectly related through effectuation. For entrepreneurial motivation, entrepreneurial opportunity was negatively associated with growth intention, although the direct relationship of entrepreneurial self-efficacy to growth intention was not significant, the direction of the association was negative as well. The two paths were indirectly associated with growth intention through effectuation. The next chapter is going to look at the findings from the qualitative data analysis.

Chapter Six: Qualitative Data Analysis and Findings

6.1 Chapter outline

This chapter presents the findings of the qualitative data analysis. In addition to the quantitative data from the survey, which is the major instrument of this study, qualitative data were also examined in order to understand the story behind the numbers. The participants were asked two open-ended questions. The first dealt with motivation and their growth intention while the second focused on entrepreneurial passion and growth intention. During the pilot study, respondents were asked if they are willing to be interviewed separately, and the majority declined. Therefore both quantitative and qualitative data were collected simultaneously via Qualtrics with the two open-ended questions coming after the survey questions. From 528 participants, 314 responded to the first open-ended question while 310 responded to the second.

6.2 Qualitative Data Analysis

Qualitative data analysis is a "process of resolving data into its constituent components, to reveal its characteristic elements and structure"(Dey, 1993, p.31). Bernard (2017) further argues that "analysis is the search for patterns in data and for ideas that help explain why those patterns are there in the first place" (p. 452). According to Merriam (2009: 176), the ultimate goal of qualitative data analysis is to make sense out of the data, and this involves "moving back and forth between concrete bits of data and abstract concepts, between inductive and deductive reasoning, between description and interpretation". During the analysis researchers seek a better understanding of concepts under investigation and continually transform their data in order to obtain renew the view of it. This can be achieved by breaking down data into codes and categories. As Dey (1993: 95) put it "with categories, we impute meanings, with coding we compute them". Assigning codes and determining categories play a central role as the researchers seek to interconnect relationships and assumptions forming respondents' views of the concepts under investigation.

6.2.1 Codes and Categories

A code in qualitative data analysis "is most often a word or short phrase that symbolically assigns a summative, salient, essence-capturing, and/or evocative attribute for a portion of language-based or visual data" (Saldana, 2009, p. 3). "Raw data can be very interesting to look at, yet they do not help the reader to understand the social world under scrutiny, and the way the participants view it unless such data have been systematically analysed to illuminate an existent situation" (Basit, 2003, p. 144). Dealing with enormous texts in the form of qualitative data requires a system that can create a pattern in the data for meaningful description or interpretation. Coding occupies a vital role in qualitative data analysis through the grouping of data and assigning categories (Dey, 1993). In the simplest way possible, coding encourages analytic thinking by tagging text with codes and indexing it, which enables easier retrieval (Bazeley & Jackson, 2013). Coding, therefore, facilitates organisation and grouping of "similarly coded data into categories or "families" because they share some characteristic – the beginning of a pattern" (Saldana, 2009, p. 8). Advancing to the stage of categories creation leads to conceptual scheme construction that is suitable to the data helping the researcher to feed his/her curiosity by cross comparing data, making hierarchical order of them and changing and dropping categories (Basit, 2003).

Advancement in qualitative data analysis has seen the introduction of software for qualitative data analysis specifically designed to reduce technical sophistication associated with qualitative data management by easing the strenuous task and making the procedure relatively easier (Wong, 2008).

> "When recoding data involves laborious collation of cut-up slips and creation of new hanging folders, there is little temptation to play with ideas and much inducement to organize a tight set of codes into which data are shoved without regard to nuance. When an obediently stupid machine cuts and pastes, it is easier to approach data with curiosity – asking 'what if I cut it this way?', knowing that changes can be made quickly"(Marshall, 2002, p. 67).

Many researchers are adopting computer-aided qualitative data analysis to ease the process and enhance methodological transparency and rigour (Blismas & Dainty, 2003).

Computers eliminate much of the challenges with coding (labelling, cutting and filing) as well as removing the restrictions that are peculiar with paper-based marking and sorting text (Bazeley & Jackson, 2013). Although computers and text analysis packages are not substitutes for the expertise of the researchers in the analysis process as they "must still create the categories, do segmenting and coding, and decide what to retrieve and collate" (Basit, 2003, p. 145), they still can augment the researchers' expertise.

The approach used for qualitative data analysis in this study is content analysis. Content analysis "produces a relatively systemic and comprehensive summary or overview of a data set as a whole, sometimes incorporating a quantitative element" (Silverman, 2016, p. 84). This technique was chosen because of its interpretive nature which allows social actions and human activities to be managed as transcripts (Lune & Berg, 2017). Content analysis employs data coding, categorizing and classification with the sole aim of creating a pattern in the data, thus, identifying central themes and/or findings from data collected (Krippendorff, 2004). Precisely, content analysis was used to analyse responses to the open-ended questions from the data collected for this study.

For this study, computer-aided qualitative data analysis software, NVivo 12 plus was used by the researcher. It offers better data management facilities with greater flexibility as well as time-saving (Jones, 2007). NVivo is a qualitative data analysis (QDA) computer software package produced by QSR International which helps researchers to search more precisely and also provide a clear picture of the data with the provision of auditing during the analysis process (Bazeley & Jackson, 2013). Other benefits include functional management of data from various sources (e.g., published documents, interview transcripts, observation notes and surveys), enhanced organization of ideas, and use of the software (query feature) to answer questions relating to the data (Bazeley & Jackson, 2013; Richards, 1999; Wong, 2008).

NVivo allows users to save results of queries for "further interrogation and so querying or searching becomes part of an ongoing enquiry process" (Bazeley & Jackson, 2013, p. 3). Relationships between themes and concepts can be shown visually with graphs and maps (Welsh, 2002).

The researcher used NVivo to organise and arrange thus making it easy to identify common theme and concepts (Leech & Onwuegbuzie, 2011; Zamawe, 2015) in accordance with growth intention, passion, motivation and effectuation. Accordingly, a mind map was created for better visualisation and attention was paid to recurring themes from the data.

Qualitative analysis dealt with the two open-ended questions in the following steps (See Figure 6.1). The first one explores the respondent's motivational factors for growth. Whereas, the second looks at factors that drive their passion for growth. The next few sections below will be dedicated to sharing the summary of the findings.

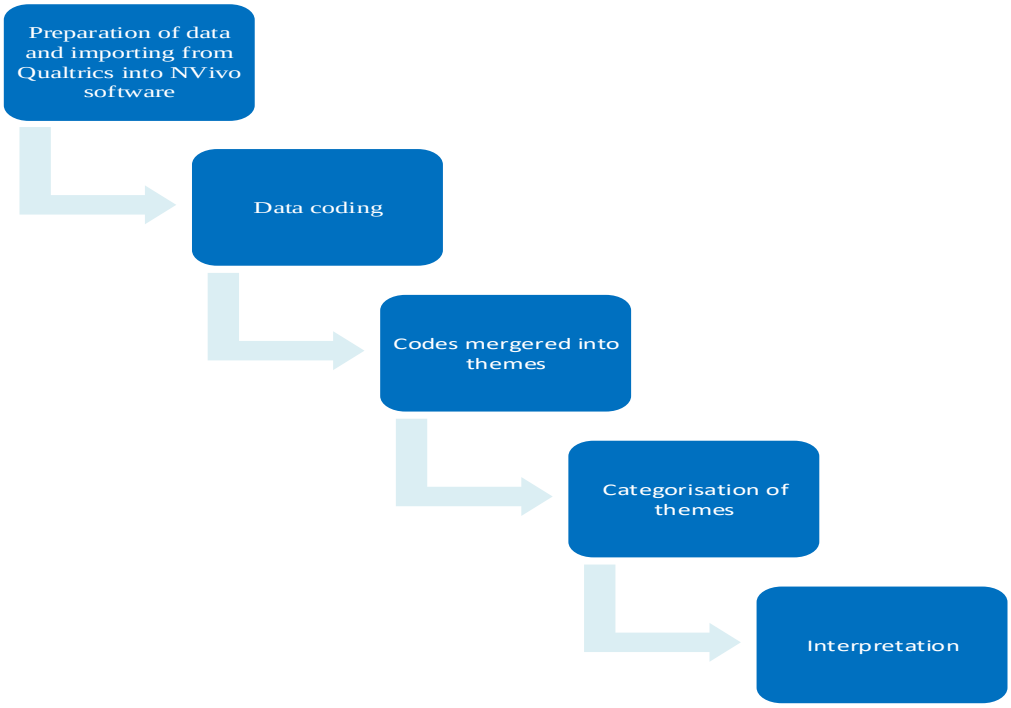

Figure 6.1: Qualitative Data Analysis Process using NVivo 12 plus

6.2.2 Overall research quality

Maintaining overall research quality was necessary, as critics have accused qualitative research as lacking in scientific rigour (Mays & Pope, 1995) and objectivity (Malterud, 2001). As this is a mixed methods research, both quantitative and qualitative data were collected and

analysed. Unlike in quantitative analysis where emphasises are on validity and reliability; qualitative researchers focus on trustworthiness, credibility, and rigour (Golafshani, 2003). Ensuring the quality of the qualitative aspect of this study results in following certain guidelines aiming to improve the trustworthiness and credibility of the qualitative findings. Following the approaches below ensures credibility:

a. Using multiple data sources and methods
b. Freedom to withdraw from the study
c. Survey questions provide probes to produce comprehensive information
d. Data analysis in accordance with research aims and questions

As outlined in Figure 6.1, NVivo software was used both as a database store and analysis tool. Each part of the data was parallel coded with more than one code per unit allowed, thereby tagging pieces of data with codes (King, 1998). This allows for the provision of cross referencing and greater detail of coding to guide against loss of data context (Braun & Clarke, 2006). Following this procedure enhances trustworthiness, making it easy for other researchers to use the material (Guba & Lincoln, 1994).

6.3 Entrepreneurial Motivational and Venture Growth

To further understand the relationship between entrepreneurial motivation and venture growth, an open-ended question asking what factors could motivate respondents to grow their business into a large one was asked in the questionnaire. Their answers were analysed thematically, and the kind of responses analysed developed the categories highlighting motivational factors as well as barriers to growth in entrepreneurship. Many of the respondents gave unequivocal answers on factors that are motivating or could motivate them to grow their businesses if present. Others also voiced their concerns about things they considered as hindrances to growth. Some categories and themes that emerged reflected motivational factors and barriers to growth.

6.3.1 Motivational Factors

From the analysis, 24 codes were initially identified for motivational factors and afterwards were grouped into 17 different themes. These 17 themes were further regrouped into eight themes (See Table 6.1) that mirrored entrepreneurs' motivation for growth reflecting

categorisation from previously published literature (Davidsson, 1991; Hamilton, 2007; Hansen & Hamilton, 2011; Puente et al., 2017; Murnieks et al., 2019).

Table 6.1: Responses to the Question: What are the factors that could motivate you to grow your business into a large company?

Themes	Country	Percentage coverage
Benefits	New Zealand	44.35%
	Australia	55.65%
Customer and client base	New Zealand	31.28%
	Australia	68.72%
Sense of Achievement	New Zealand	80.22%
	Australia	19.78%
Family and friend	New Zealand	83.77%
	Australia	16.23%
Market	New Zealand	66.55%
	Australia	33.45%
Retirement	New Zealand	19.45%
	Australia	80.55%
Societal contribution	New Zealand	27.41%
	Australia	72.59%
Independence	New Zealand	100.00%
	Australia	0.00%

Benefits- Returns, profit, financial reward, improved lifestyle, more investment. This category had the highest responses as the majority of the respondents mentioned potential benefits they could derive from engaging entrepreneurship as motivational factors. Responses illustrating this coding are as follows:

> *Providing a capital return when I exit to provide certainty and reward to long serving loyal team members (PNZ27).*

The security of a guaranteed income stream to cover all overhead costs without loss (PAUS16).

Opportunity to make more money, be more secure (PAUS48).

Customer and client base- This category had the second highest responses, as people viewed access to more customers and an expanding client base as a growth motivation. Examples of responses coded in this theme were:

The desire to have a larger client base and subsequently have opportunity to provide my services in a broader range of circumstances (PAUS21).

Getting a new client from a country we have not had clients before - approx. 85% of the company's revenue is from overseas (PNZ87).

If the need is there from clients and companies, then I'd consider expanding (PAUS126).

Sense of Achievement- Recognised brand, reputable company. Responses in this category indicated that the desire to achieve something remarkable could serve as motivation to grow their business into a large firm. Examples of such responses include:

To know that I am a success and that I am achieving my potential (PAUS11).

To know I have achieved something in my lifetime, to leave a legacy (PNZ27).

Family and friend- Succession, encouragement. Under this category, respondents emphasised the importance of exciting succession opportunities for their family members as well as encouragement from friends as motivating them to grow their ventures**.** Examples of responses in this category were:

To provide exciting succession opportunities (PNZ27).

Family members' participation (PAUS165).

Informed advice from a successful friend (PNZ60).

Market- Market security, market demand. Responses in this category indicated a secure market and the size of the market as other factors that could motivate them to grow. It is worth noting that those concerned with market security are mainly from New Zealand, as shown in

Figure 6.2, as some of the respondents talked about the small size of the market. Perhaps because Australia is a bigger economy, none of the respondents from there talked about market security, however, more than 80% of the respondents that viewed market demand as a motivational factor are from Australia. Examples of responses classified in this theme were:

> *A greater degree of market certainty given the change in trends and tastes (PNZ116).*
>
> *Stronger demand (PAUS28).*
>
> *The market demand (PAUS17).*

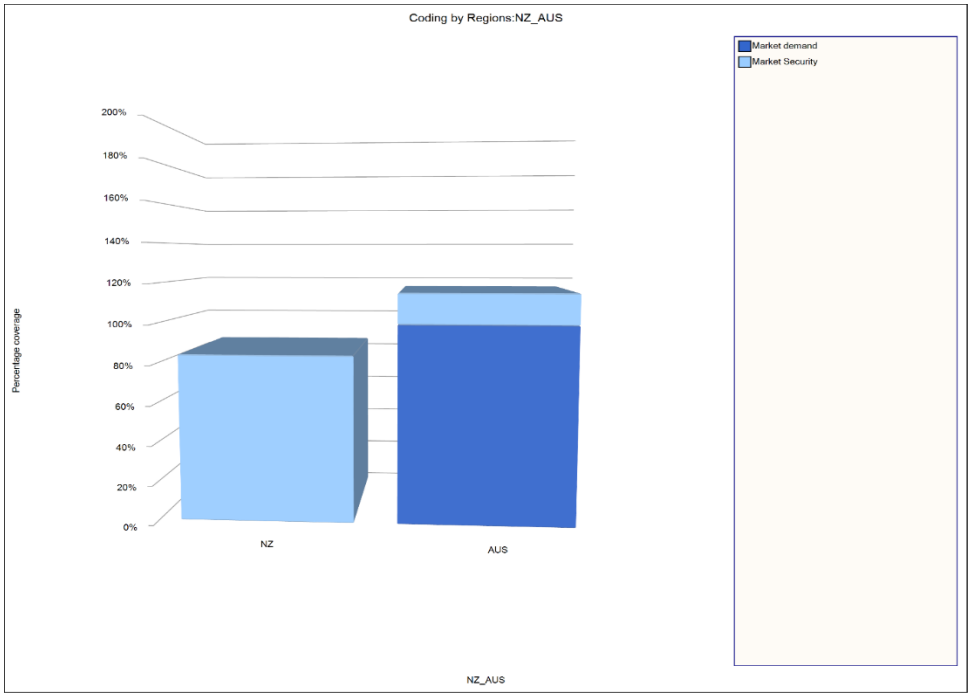

Figure 6.2: Observed Differences in Perception of the Market as a Motivating Factor Based on Country

Retirement- Responses in this category related their motivation for growth to leaving a legacy after retirement as well as acquiring more financial resources for retirement. Some examples of responses placed in this theme were:

> *I am in the process of transferring the business to my son and want it to be in good shape for him to try new ideas and expand the operations with better technology (PAUS141).*
>
> *Acquiring more financial resources for retirement (PAUS108).*

The legacy I leave behind when I retire (PAUS18).

Societal contribution- Most of the respondents under this category, indicated that solving social problems such as unemployment and unethical business practices are motivating factors for growth. In some participants' words:

> *To present a service that is committed to ethics and morality in an increasingly fractured business world (PNZ5).*
>
> *Ethical impact on the world through sponsorship and investment (PAUS106).*
>
> *The thought of being able to employ more staff (PNZ15).*

Independence- The desire for autonomy is seen as a motivating factor under this category. As one respondent put it:

> *I never wanted to work for anybody which is probably the strongest motivation. This motivation probably comes from working for other people in my early years! (PNZ48).*
>
> *A business that is self-generating that offers me time to follow my personal passions is my ideal (PNZ100).*
>
> *To make my own brand and everybody liked it (PAUS9)*

6.3.2 Barriers to Growth

Some respondents indicated their unwillingness to grow as well as giving the reason(s) for it. Others show that growth is a possibility, but present happenings are making them reconsider growth. Further thematic analysis of these responses generated 25 codes at first and later deconstructed 15 groups based on similarities. Upon further review of these 15 groups, some of them were collapsed into other, as they are seen as not strong enough to stand alone. During this review process, codes were reassigned when necessary. Finally, six distinctive themes emerged from the data. These themes support evidence from previous observations (e.g. Gill & Biger, 2012; Gill & Mand, 2013; Lee, 2014; Lee & Cowling, 2015).

Table 6.2: Responses to the Question: What are the factors that could motivate you to grow your business into a large company?

Themes	Country	Percentage coverage
Satisfaction with current state	NZ	68.31%
	AUS	31.69%
Government	NZ	85.73%
	AUS	14.27%
Small is better	NZ	80.18%
	AUS	19.82%
Financial consideration	NZ	50.08%
	AUS	49.92%
Age	NZ	85.18%
	AUS	14.82%
Risk and Uncertainty	NZ	96.84%
	AUS	3.16%

Satisfaction with the current state- Challenges of growing large business, size of the industry, lack of interest. The theme of satisfaction with the current state relates to the unwillingness to grow. The data revealed that most of the respondents set out for a small business without any growth ambition or rather view growth as cumbersome. Examples of responses under this category include:

> *Nothing I am happy as a sole trader (PAUS57).*
>
> *None, prefer to keep it as is, it works well, so leave it alone (PAUS67).*
>
> *NOTHING. I am financially successful. I don't need a few extra zeros on net worth (i.e. I have enough already). Time for family and non-business activities is important (i.e. Business is priority, but it does not take second, third, fourth, etc. place as well) (PNZ33).*

It is evident, some of the respondents dread the challenges posed by growing, as shown in the responses below.

> *None. I don't want to be a big business, too many headaches. Small is good and manageable (PNZ40).*
>
> *Initially, I envisaged growing my professional services company to include several business partners and employees and started down that track. I found I*

spent most of my time on business development rather than delivering services to customers. I made a conscious decision to change direction. I now work on my own which gives me more flexibility, lifestyle balance and the chance to focus on solving problems for my clients (PNZ59).

Others felt they were conditioned to being small because of the size of their economy and industry. Examples of such are:

We are limited by the size of the NZ industry in this sector to grow much larger (PNZ4).

I have a niche business and have survived when others did not. Will stay at the level I am currently (PNZ78).

Government- This theme covers Government support and policies, health and safety and compliance costs, economic and labour policies, tax and political stability. Under this category, this is the theme with the second highest number of responses. Many of these respondents felt that some of the government policies were against growing firms. Besides, there were resentments that the government is not doing enough to support small and medium scale businesses. Examples of responses under this theme are:

Well, to establish a large company is not possible without the government's support. Present situation is very much negative in the market to survive, especially small business owners (PAUS4).

Not really. With the current government, I am about to either sell the business or close it down after 29 years (PNZ35).

If the government in New Zealand nurtured businesses instead of seeing them as cash cows to be sucked dry. If New Zealand was a country where local endeavour was respected and favoured over overseas sourced products and services. If New Zealand was a country where industry was seen as beneficial to its citizens rather than a burden on the environment. If New Zealand was a country which favoured quality over price (PNZ68).

Respondents were also concern with issues such as tax burden and complication in health and safety and compliance cost. Examples are:

Reduced taxes, remove provisional tax (PNZ25).

Less compliance particularly in employment (PNZ15).

Less compliance and red tape (PNZ58).

Small is better: Control and management, time for other activities, delivering excellent services, product and brand integrity. Some of the respondents equate venture growth with loss of control and management, compromise in the quality of services rendered. Hence, they believe that staying small is the best option for them. Examples of such responses are:

> *There are now no factors which could motivate me to grow my business into a "large company". I do not have the time to do so, given my personal health, family health and caring commitments outside my business (PAUS13).*
>
> *Small is better. Can control if it is like this (PNZ21).*
>
> *I would not necessarily want to grow my business beyond a small manageable size as I see myself as a small business operator. Ideally, I would move on from one business idea to another but just being involved in one's own business leaves plenty of room for innovation and imagination (PNZ76).*

Some held the view that growing might put at risk the integrity and quality of their products. Examples of responses under this category include:

> *Needing to be convinced the effort required would be beneficial and the integrity of product maintained (PNZ5).*
>
> *The challenge of growing the business and providing a good service to customers (PNZ11).*
>
> *Not now-I prefer a small company providing an excellent and niche service (PNZ37).*

Financial consideration: Under this category, responses focused on funding needs and resources constraint making it challenging to pursue growth aspiration. Respondents lamented the cost to be incurred in the growing processes as well as the complexity of obtaining the required funds. Their comments included:

> *We do not have enough space to grow, we are at full capacity Finances - property and commercial rent is very high…. (PNZ2).*
>
> *If I had the funding and the staff to allow me to (PAUS130).*
>
> *Access to capital. Banks are very restrictive, and the alternatives are very expensive (PNZ115).*

Interestingly, only funding appears to have a similar impact both on New Zealand and Australia respondents (see Table 6.2). This is not strange, as extant literature has established

the fact that finance remains a significant challenge to venture growth irrespective of economic status (Beck & Demirguc-Kunt, 2006; Wang, 2016; Worku, 2016).

Age- As more than half of the respondents for this study are above 40 years old, it is not surprising that under this category age is seen as a barrier to growth. Examples of responses coded in this category were:

> *Because I am at retirement age, I am not looking to grow the business larger (PNZ111).*
>
> *If I was 30 years younger (now nearly 60) (PNZ71).*
>
> *When I would be younger (PAUS2).*

Risk and uncertainty- Some of the respondents indicated that risk and uncertainty associated with growth made them abhor it. Responses illustrating this coding are as follows:

> *We are not prepared to take risks to grow the business (PNZ3).*
>
> *Certainty over regional NZ futures. Current coalition seems hell-bent on reducing reliance on primary industry. It is the loss of primary industry growth that most affects regional economies. Uncertainty around this means businesses are less likely to take any risk that need matching growth to sustain them (PNZ108).*
>
> *Capital without large risk (PNZ109).*

From the themes that emerged from the coding, it became imperative to explore the patterns of connection between motivational factors and what drive these entrepreneurs, hence, a matrix of growth was developed (See Figure 6.3). For instance, most respondents identified **benefits** as a significant factor that could motivate the growth of their businesses, and the majority of them also complained about government as the barrier to their growth. If entrepreneurs are only concerned with economic benefits and are not socially responsible, they are likely going to see any attempt to regulate their dealings as a threat to their profit.

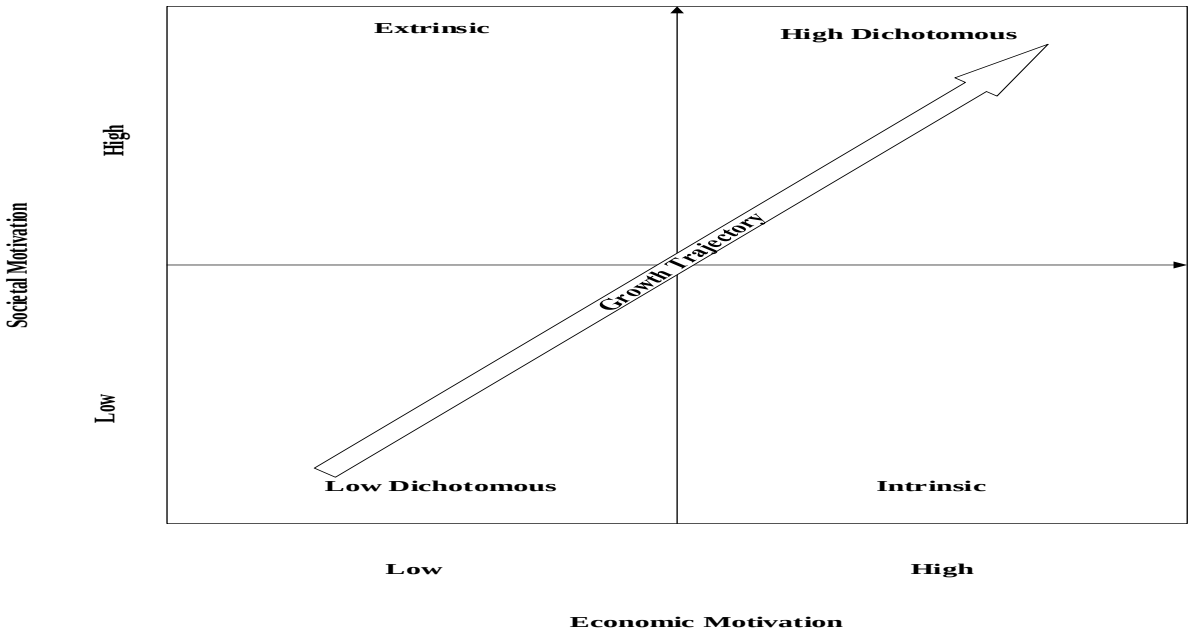

Figure 6.3: 2x2 Classification Matrix of Growth Seeker

Further analysis of the data in relation to the above classification matrix revealed that 47% of these respondents are intrinsic growth seekers, 22% are low dichotomous growth seekers, and 20% are extrinsic growth seekers meanwhile only 11% belong to the high dichotomous growth seekers. These results reflect those of York et al. (2016) who also found that entrepreneurs are basically motivated by commercial and/or ecological venture goals depending on which is their strength and ability to link between these two identity types.

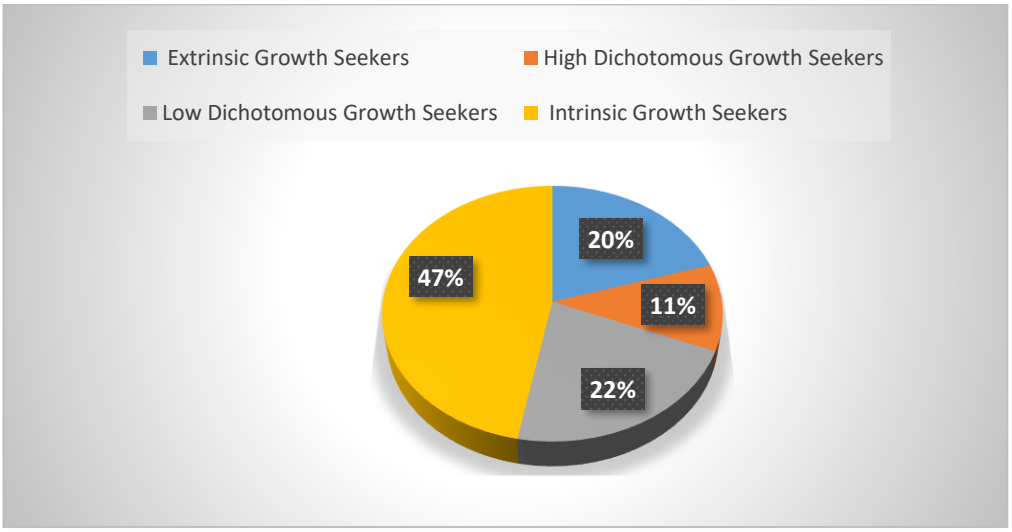

Figure 6.4: Economic and/or Social Motivations of Participants

Intrinsic Growth Seekers are those who are primarily concerned with economic benefits for themselves and those around them, such as family and staff. They are high on economic motivation but low on societal motivation. Examples of responses coded in this category were:

> *Providing a capital return when I exit. To provide certainty and reward to long serving loyal team members and to provide exciting succession opportunities. To know I have achieved something in my lifetime. To leave a legacy (PNZ27).*
>
> *More income - more leaders under that business name - better marketing strategies could be implemented due to a larger income (PAUS54).*
>
> *To bring my product to as many people as possible. To know that I am a success and that I am achieving my potential. Also to make money (PAUS11).*

Extrinsic Growth Seekers They appear to be mainly concerned about societal good as they are high on societal motivation but low on economic motivation. This could range from developing products that promote healthy change in different consumer segments to taking on the challenge of building sustainable business. Responses illustrating this coding are as follows:

> *Wellness for all with food for medicine. A lifestyle change for the better (PAUS1).*
>
> *The challenge of achieving this objective and establishing a company that has a sustainable future (PZN35).*
>
> *Diverse client base (PNZ64).*

Dichotomous Growth Seekers are further divided into two: Low Dichotomous Growth Seekers and High Dichotomous Growth Seekers. Those on the low quadrant are low on both societal and economic motivation. While those on the high quadrant are high on both economic and societal motivation, interestingly, the high quadrant is the desirable spot, and all efforts should be geared towards getting others into this spot.

Low Dichotomous Growth Seekers are those who are not interested in both economic and societal benefits but are motivated by other factors. Some examples of responses placed in this theme were:

> *Incentives - probably from Central Government. Such might involve R+D grants and research assistance… (PNZ23).*

Finding good, competent and reliable staff. That can do the work without relying too much on me. More staff does not mean more money and more profit. Finding the right staff is very difficult and I am not interested in training staff who will not stick around long enough to make a difference (PNZ32).

Putting my knowledge to work (PAUS38).

High Dichotomous Growth Seekers are high on both economic and societal benefits as shown in Figure 6.3 above. Examples of responses under this are:

Money and ethical impact on the world through sponsorship and investment (PAUS6).

To present a service that is committed to ethics and morality in an increasingly fractured business world. Planning for a comfortable retirement. Needing to be convinced the effort required would be beneficial and the integrity of product maintained (PNZ13).

Market opportunities that realize sustainable growth with acceptable profit (PNZ56).

Furthermore, the nature of their motivation reveals three types of focus: Personal centric, Firm centric and Activism (See Figure 6.6, 6.7, 6.8).

Personal centric- Ranked the highest and reasons given are shown below in Figure 6.6. Being personal centric suggests that the focal point of their motivation revolves around things that satisfy their personal need such as money, achievement, capital and succession. These factors are in accordance with motives identified by Puente et al. (2017) for growth aspiration.

Figure 6.5: Wordcloud for Personal Centric Group

Firm centric- Ranked second and the reasons given are shown below in Figure 6.7. Participants in this group care more about their firm, concentrating on the market, brand, clients, demand, service provided and their staff. These factors, as mentioned earlier, are the focus of their motivation and are similar to those highlighted when relating small business performance to firms' market position (Roper, 1999).

Figure 6.6: Wordcloud for Firm Centric Group

Activism- Ranked third and the reasons given are shown below in Figure 6.8. This group is focused on championing the right of staff, customers and clients. They are also interested in growing companies in a sustainable manner. Overall, they seem to be concerned about creating value for others and society, which is an essential attribute of the social entrepreneur (Yitshaki & Kropp, 2016).

Figure 6.7: Wordcloud for Activism Group

6.4 Sources of Entrepreneurial Passion

For a better understanding of the source of the entrepreneur's passion, an open-ended question asking what is fuelling their passion for growing their business was asked in the questionnaire administered. Out of the 528 participants, 310 responded to this open-ended question. Some of the responses indicated that they are not interested in growing their business. Table 6.3 contains the percentage coverage of responses from New Zealand and Australia related to the themes.

The responses received were analysed thematically, and the range of responses resulted in the categories describing sources of entrepreneurial passion. At first, the coding resulted in the generation of 37 codes, and these were then regrouped into five main themes similar to those found in the literature (Cardon et al., 2017; Newman, Obschonka, Moeller, & Chandan, 2020).

Personal reasons- Success, legacy, sense of achievement, retirement, self-satisfaction, fun, financial benefits, competition, freedom, improved lifestyle, growth and driven by compulsion. The theme that has the highest number of responses was personal reasons. Respondents indicated that their passion for growth is driven by personal desires for success. As one respondent said:

> *The desire to know that I am achieving my potential and that I am as successful as I can be (PAUS11).*

Table 6.3: Responses to the Question: If you are passionate about turning your business into a large company, what could you say is fuelling your passion?

Node	NZ_AUS	Percentage coverage
Personal Reasons	NZ	50.50%
	AUS	49.50%
Business-related	NZ	43.19%
	AUS	56.81%
Social conscience	NZ	52.95%
	AUS	47.05%

The desire to succeed seems to be a compelling reason to want to grow, and the pursuit of this singular goal will make some want to develop their business. With a growing business comes fame and the opportunity to be seen as successful. The comment below illustrates:

> *Achieving more and making a name for myself (PAUS 148).*

Although some felt that being successful has nothing to do with size, there is certainly going to be an increase in value to show for that. For example, one participant said:

> *Again, I want it to be successful, not large. The size is immaterial; it is the return on investment, including time and resources that is important (PNZ79).*

Other personal reasons given by others are legacy and retirement. Thinking of what to leave behind after retiring is driving force for others. Talking about this issue, some respondents said:

> *Retirement is 6 years away and I want a business legacy for my children and grandchildren to continue to grow the company for their financial gain (PAUS180).*
>
> *Solving the puzzle and desires to build a long term legacy for my family (PNZ86).*

Apart from leaving a legacy, fear of life after retirement is another factor highlighted by some respondents. Examples are:

> *Money and financial freedom for retirement so I can enjoy my later years relaxing instead of having to continue working (PAUS16).*
>
> *The need to provide for what I hope will be a long and happy retirement (PNZ27).*

The thought that if successful in growing their business seems to present security for an ***improved lifestyle*** and their failure to do so could mean doom. This view looks like a popular opinion among the respondents. As one respondent put it:

> *The joy of success and the fear of failure are the two strongest motivators fuelling me (PNZ83).*

Being able to achieve this and staying the positive side brings a lot of ***self-satisfaction*** and ***fun*** for some of these business owners.

***Financial benefits**:* Money, profit, reward. The second highest number of responses was financial benefits in the form of money, profit and reward. Craving to satisfy the desire for return was indicated as the source of passion for some of these respondents. Interestingly, the desire is linked with other things like a comfortable lifestyle, financial freedom and recognition.

> *Money, living a comfortable lifestyle and not having to worry about simple things like food, fuel and electricity (PAUS48).*
> *Have a reliable and flexible income stream and create something that has real value (PAUS8).*
>
> *… to create more wealth and reward for me and the other employees within the business (PNZ26).*

Some see the financial benefits as just a sign of good thing happening to their business because they set profit as a performance measurement. Examples of responses under this category are:

> *More driven by compulsion to do business that seems to be profitable. The bigger you get the more opportunity arises (PNZ31).*
>
> *… seeing the number of invoice being sent out each month and a corresponding increase in receipts (PNZ87).*

***Growth**:* Some of the respondents indicated they are just passionate about growth. For entrepreneurs with a developer identity, they are excited about something salient with their entrepreneurial role identities. Hence, it was not surprising to see some of the respondents say that their source of passion for growing their venture is growth. As one respondent put it:

> *It is fun growing a business having done this once already - it creates life opportunities, allows the use of skills and it is very satisfying to be able to lead a business and to sit back from time to time and appreciate what you have been able to achieve (PNZ11).*

One participant alluded to the fact that there is an expectation and "seeing something grow beyond expectations" is what has been driving him to grow. Others felts to continue being in business growth is inevitable because growth presents enormous opportunity. Examples are:

> *The fact that no business stands still you have to grow or you will be left behind (PAUS186).*
>
> *The bigger you get the more opportunity arises (PNZ31).*

Business related- Love for the business, services rendered, becoming industry leader, good products, staff, new challenges. This theme was developed as things connected to the business venture were highlighted as the driver of the entrepreneur's passion for growing. Loving and deriving satisfaction from what they do is what some pointed to as fuelling their passion for growth. For example, some participants said:

> *I am passionate about what I do. It is the type of work ... where my passion lies. So I keep my business going because I love the job (PNZ111).*

> *I love what I do and if I could get my product out there to as many people as possible and grow my business I would have achieved one of my life's goals (PAUS239).*

Because passion is contagious, owner-manager must also show that they are passionate about their business in order for their employees or co-workers to follow suit.

> *I love what I do. I love being my own boss and being in charge of the work we do and clients we engage with. I love having people who work for me being passionate and committed (PNZ18).*

Other essential factors that surfaced are services provided and products brand. The desire to widen the coverage of products and services has also been identified as a source of passion for growth. Examples are:

> *I am passionate about the services that my business offers, and so I want as many people to be able to experience them as possible (PAUS97).*

> *The belief that we are the best and provide the best service in the sector (PAUS211).*

While they strive to grow their market share, some are also driven with the thought of becoming the market leader in their industry.

Social conscience- Helping others, customers, societal need, making an impact, family and staff. Responses in this category linked the source of an entrepreneur's passion for growing their venture to other people outside themselves. Desire to help others improve their quality of life has led some to invent products for that purpose or render services in that line. Job creation is another factor that was identified in this category. By growing and providing more

employment opportunities for job seekers, the entrepreneur is solving the societal problem of unemployment. Examples of such are:

> *Providing employment opportunities in a depressed area (PNZ55).*
>
> *Desire to ensure that the consumer has a choice that meets their needs (PNZ56).*
>
> *Helping other people to achieve their goals (PAUS49).*

Taking "public interest" into consideration has become a bedrock of sustainable business, and more entrepreneurs are yielding the call to do business in an environment-friendly way. Placing the planet before profit has become popular in recent time as people realise that hurting the earth is devastating to humankind. Examples of such responses are:

> *We only do what we call 'public interest' work, i.e. environment, social justice, health promotion, the arts. A strong focus on sustainability is important to us and a founding value. This is what fuels my and staff passion for work (PNZ70).*
>
> *Something that makes a difference to the world (PAUS204).*
>
> *To make a difference to the planet and helping others (PNZ23).*

In summary, these findings show that there are factors that motivate entrepreneurs to want to grow their business as well as barriers that hinder their growth aspirations. On the sources of passion, respondents identified three broad sources, namely: Personal reasons, business-related and social conscience.

6.5 Chapter summary

The first open-ended question checked for factors that motivate entrepreneurs to form growth intention, while the second open-ended question is interested in what fuels entrepreneurs passion for growth. Some of these findings from this chapter enhanced the understanding of the results in chapter five. The subsequent chapter discusses the findings from both chapter five and six in detail.

Chapter Seven: Discussion

7.1 Chapter outline

Building on the results from the quantitative analysis and the findings from the qualitative data analysis, the researcher set forth to interpret the relationships among the constructs of interest for this study. As mention before (section 4.2.1), the research paradigm of this study is pragmatism allowing for a mixed methodology approach which advocates integrating the results as well (Tashakkori & Creswell, 2007). Therefore, the key findings of both the quantitative and qualitative analyses are discussed in the subsequent sections in this chapter.

7.2 Entrepreneurial Passion and Growth Intention

This study set out with the aim of assessing the role of effectual logic in the impact of entrepreneurial passion and motivation on growth intention of SMEs in Australia and New Zealand. It was hypothesised that entrepreneurial passion for founding and developing was significantly associated with growth intention. Concerning entrepreneurial passion for founding, it was found that there was no significant relationship. In reviewing the literature, no empirical study was found on the association between passion for founding and growth intention. However, Biraglia & Kadile (2017) reported a strong positive relationship between passion for founding and start-up intention, which reflects the founder's role identity. Activities associated with the founder's role identity will likely make nascent entrepreneurs engage in tasks such as venture start-up.

Interestingly, the finding of this study is consistent with that of Stenholm & Renko (2016), who found that there was no significant relationship between passion for founding and new venture performance such as entrepreneurial survival. A possible explanation for this might be that those entrepreneurs with the founder's role identity are not interested in activities that are not salient to their identity like growing a firm. It may also be a result of the uniqueness of the Australasian context. Australia and New Zealand are peculiar and relatively isolated

from other developed nations; these factors have been identified by firms in this region as a barrier to internationalisation thus hindering their growth potential (Loane & Bell, 2006). Owing to the size of the local market and the limitation posed by distance to foreign markets, founders may exit rather than pursue growth.

This was also evident in the qualitative findings, as some of the respondents blatantly declared that they are not passionate about growing their ventures. Another possible explanation for this is that some habitual entrepreneurs are interested in founding new venture for the sole aim of selling it off to bigger firms willing to acquire it. Concerning the relationship between entrepreneurial passion for developing and growth intention, the result shows that passion for developing exert significant positive effects on growth intention of SMEs. This is in line with the findings of similar studies which reported direct positive impacts of passion for developing on venture growth (Drnovsek et al., 2016). The finding is also consistent with Ma et al. (2017), who reported that entrepreneurial passion has a significant positive relationship with venture performance. Indeed, this association between passion for developing and growth intention reflects activity that is salient to the role identity of a developer (Cardon et al., 2009), seeing that some of the respondents indicated that passion for growth is the driving force for growing their ventures.

7.3 Entrepreneurial Motivation and Growth Intention

In this study, two motivational factors were hypothesised to drive growth intention. According to Davidsson (1991), perceived opportunity and ability could trigger growth motivation in entrepreneur, which will eventually lead to actual growth. Following this assertion, this study hypothesised that entrepreneurial opportunities and entrepreneurial self-efficacy are significantly associated with growth intention. For entrepreneurial opportunities and growth intention, this hypothesis was confirmed based on the findings from this study. However, what is surprising is the negative direction of this relationship. This outcome is contrary to that of Gielnik et al. (2017) who found a strong positive impact of entrepreneurial opportunities on venture performance. From the qualitative findings, respondents identified financial benefits as one of the motivating factors and reiterated their willingness to exploit opportunities that will help them achieve their goals. Notwithstanding, if anything threatened the achievement of this goal, opportunities for growth might be abandoned.

However, unlike other studies that established direct effects of entrepreneurial self-efficacy on venture performance (Boyd & Vozikis, 1994; Cumberland et al., 2015, 2015; Hmieleski & Corbett, 2008; Miao et al., 2017) there is no significant relationship between entrepreneurial self-efficacy and growth intention in this study. One unexpected finding was a negative relationship between entrepreneurial self-efficacy and growth intention, though not significant. These relationships may be partly explained by contextual factors such as firm life cycle stage, entrepreneur's career stage and institutional environment. As noted by Hmieleski & Baron (2008b) moderate optimism in a dynamic environment will strengthen the effects of entrepreneurial self-efficacy on firm performance positively, however, high optimism in such an environment will produce devastating effects. Another possible explanation for this is that self-efficacious entrepreneurs can slide into overconfidence as there is only a thin line of demarcation which will eventually affect performance negatively (Moores & Chang, 2009).

Indeed, some insights can be gained about the relationship between entrepreneurial opportunities and growth intention from the qualitative findings. Respondents raised concerns over government policies that inhibit their profitable operation. Issues such as compliance costs, taxes, health and safety as well as policies on labour are seen as burdensome to their ventures. In an unhealthy environment such as perceived by these entrepreneurs, the presence of entrepreneurial opportunities will not necessarily translate into growth because some will rather quit than continue. However, many of these respondents seem to be concerned about only profit, and any policy or regulation that affect them will be perceived negatively.

Another evidence that emerged from the qualitative findings is that entrepreneurs with retirement in mind are opting out of the possibilities of venture growth, citing age as an excuse. These findings are similar to other studies that have highlighted regulatory issues and lack of government support as barriers to SMEs growth (e.g. Gill & Biger, 2012; Gill & Mand, 2013; Lee, 2014; Lee & Cowling, 2015).

7.4 Effectuation and Growth Intention

The structural model indicated a significant relationship between effectuation and growth intention. This finding broadly supports the findings of other studies in this area linking

effectual logic with venture performance (Brettel et al., 2012; Cai et al., 2016; Deligianni et al., 2017; Futterer et al., 2017; Guo et al., 2016; Laskovaia et al., 2017; Matalamäki et al., 2017; Roach et al., 2016; Smolka et al., 2018). In earlier studies, effectuation was examined in relation to venture creation process due to the uncertainty associated with this stage of the entrepreneurial process.

More recent studies have begun to look at firm performance through the lens of effectual principles. Entrepreneurial decision-making relating to growth has to contend with uncertainties. For entrepreneurs to deal adequately with the three types of uncertainties (state, effect and response) as suggested by Milliken (1987) when making this decision, it is recommended that they use heuristics (Busenitz & Barney, 1997), domain-specific logic in particular such as effectuation. As new ventures pursue growth into new markets through product diversification, it is worth noting that Deligianni et al. (2017) assert that the positive effects of product diversification on venture performance is strengthened by effectuation principles.

Effectuation has also served as the mechanism that unlocks venture performance in differing cultural contexts (Laskovaia et al., 2017). As evident from the qualitative findings, growth barriers such as environmental complexity, lack of funding and uncertainty associated with growth can be overcome with the application of effectuation principles. For those that want to explore foreign market opportunity as some of the respondents lamented the smallness of the local market in the qualitative findings, registering their presence in a foreign market is a real challenge. Difficulties encountered during internationalisation by SMEs like resource constraint, networking, and the complexity of the market can be overcome by effectual logic (Chetty et al., 2015; Galkina & Chetty, 2015).

7.5 Entrepreneurial Passion and Effectuation

Entrepreneurial passion for founding and developing was hypothesised to have significant effects on effectuation. The results of the study show that each of the entrepreneurial role identities has a significant effect on effectuation. Consistent with the literature, this research found that entrepreneurs with role identity such as founder and developer use effectuation principles. Stroe et al. (2018) claimed that harmonious passion in entrepreneurs

would lead to the use of effectual logic. Harmoniously passionate entrepreneurs were likened to those with intense positive feelings because harmonious passion results in positive affective experiences (Cardon et al., 2009; Gielnik et al., 2017).

Entrepreneurs face uncertainty, whether at the initiation stage or when growing their ventures. To deal with the uncertainty at any stage of the entrepreneurial process, entrepreneurs effectuate irrespective of their role identities. Indeed, effectuation helps these entrepreneurs to strengthen the role identity that is peculiar to them. Passionate entrepreneurs are also found to persist in adverse situations (Cardon & Kirk, 2015), and this is made possible by "risk a little, fail cheap" doctrine of the affordable loss principle of effectuation. Due to their role identity, passionate entrepreneurs continue with salient activities even in a volatile environment by experimenting with contingencies and forming an alliance with available interested stakeholders (Sarasvathy, 2001; 2008). For example, from the qualitative findings under personal reasons as the fuel that inflamed their passion, one of the respondents reveals that s/he enjoys growing new ventures and s/he is already experimenting with another having done that before.

7.6 Entrepreneurial Motivation and Effectuation

As hypothesised, entrepreneurial self-efficacy exerts a positive effect on effectuation. This finding broadly supports the work of other scholars in this area linking entrepreneurial self-efficacy with effectuation (Hinz, 2017; Stroe, Parida, & Wincent, 2018). As effectuation is means driven, part of entrepreneurs' means is their skills and abilities which boost their entrepreneurial self-efficacy. As noted by Cumberland et al. (2015), three dimensions of entrepreneurial self-efficacy (innovation, management, and financial control) impacted firm performance positively in a challenging environment. This suggests that these competencies relate to one of the means of an entrepreneur (what I know) and can help in navigating difficult business landscapes. Entrepreneurial self-efficacy increases the level of confidence and enhance the quality of decision-making. Efficacious entrepreneurs are confident and can convince others to form a partnership with them as well as network with interested stakeholders.

It was also hypothesised that entrepreneurial opportunities are significantly associated with effectuation. The result of this study showed that entrepreneurial opportunities are positively associated with effectuation. This suggests that the formation and presence of viable and desirable opportunities that can lead to venture growth require entrepreneurs to apply effectuation principles as they look to take those that fit their resources and reduce the uncertainty associated with them. From the qualitative findings, it is evident that respondents placed a premium on market opportunities as one of them emphasised the ability to *react and adapt to opportunities as they arise without wasting time.* This finding is consistent with that of Urban (2018) who investigated the relationship between effectuation and opportunity recognition and found that entrepreneurs heavily relied on effectual principles to form partnerships, remain flexible, experiment with ideas and use the affordable loss principle to recognise and exploit more opportunities in the dynamic and hostile environment of an emerging market.

7.7 The Mediating Role of Effectuation in the Entrepreneurial Passion and Growth Intention Relationship

In this study, effectuation was hypothesised to mediate the relationship between entrepreneurial passion for founding and growth intention as well as the relationship between entrepreneurial passion for developing. The results derived from structural equation modelling revealed that there was no direct relationship between passion for founding and growth intention, however, the indirect relationship through effectuation was supported. This is worth noting as the findings from the qualitative data reveal that the origin of their passion of some of the respondents is personal aggrandisement and this can easily be quenched when facing challenges that constituted barriers to growth. However, the passion that originates beyond personal glorification such as identity and social conscience might overcome these barriers. For instance, those that are passionate about societal issues such as creating *employment opportunities in depressed areas* might secure support and partnerships that help them in overcoming these challenges.

In the case of passion for developing, both the direct and indirect relationships were supported by the results. Therefore, the relationship between passion for founding and growth intention was fully mediated while the link between passion for developing and growth

intention was partially mediated. In a recent systematic review of literature on entrepreneurial passion, no empirical study was found on the mediating role of effectuation in the relationship between entrepreneurial passion and venture performance (Newman et al., 2020). Other constructs have explained this relationship over the years, but as it became imperative for this study, effectuation was chosen due to the context of this study which leaves the entrepreneur with multiple challenges in the pursuit of growth. As found in the literature, resource constraint and contextual issues such as regulations and market were identified as the huge barriers that hinder growth. Interestingly, the findings from the qualitative part attest to these factors and effectual principles such as means, pre-commitment, and affordable loss looked well suited to unravel these relationships.

The indirect relationship of entrepreneurial passion for founding and developing with growth intention occurs through effectuation. Effectuation fully mediates the relationships between passion for founding and growth intention as well as partial mediation of the link between passion for developing and growth intention. These essential findings confirmed effectuation as one of the mechanisms through which the effects of a positive emotion such as intense positive feelings emanating from engaging in entrepreneurial tasks that are salient and meaningful to the entrepreneur's role identities are directed towards entrepreneurial effectiveness. For example, those who recognised their passion as the source of identity, love what they do and want to keep doing it. With this in mind, they approach every opportunity with caution (affordable loss), so that if they failed, they still have resources to try again and again.

Consequently, passionate entrepreneurs effectuate to strengthen their entrepreneurial identities further. While other studies in entrepreneurship have validated the role of effectuation in improving venture performance (Brettel et al., 2012; Deligianni et al., 2017; Laskovaia et al., 2017; Roach et al., 2016; Smolka et al., 2018), this study is one of the first that empirically analyses the mediating role of effectuation in the formation of growth intention by passionate entrepreneurs.

7.8 The Mediating Role of Effectuation in the Entrepreneurial Motivation and Growth Intention Relationship

As hypothesised, the mediating role of effectuation was tested between entrepreneurial opportunities and growth intention as well as between entrepreneurial self-efficacy and growth intention. The result of the study found direct and indirect effects of the relationship between entrepreneurial opportunities and growth intention through effectuation, thus the relationship was partially mediated. The direct relationship surprisingly shows that the presence of opportunities is not leading to growth intention. Rather, the more opportunities, the less entrepreneurs are willing to grow, and this is contrary to what is found in the literature (Gielnik et al., 2017). The qualitative findings show that due to contextually related challenges, entrepreneurs dread growth which may in part be responsible for the increase of opportunities as some exit the market, creating opportunities for others. Nonetheless, effectuators might be able to exploit these opportunities by reducing or eliminating the associated uncertainty with the application of effectual principles.

For the relationship between entrepreneurial self-efficacy and growth intention, there was no direct effect. However, an indirect impact through effectuation was confirmed. Efficacious entrepreneurs may back down from their growth ambition due to perceived uncertainty posed by the environmental factors as highlighted in the qualitative findings. Although this finding is contrary to previous studies which have suggested that entrepreneurial self-efficacy exerts a positive effect on venture performance, Murnieks et al. (2014) noted there is more to the driving of performance than entrepreneurial self-efficacy. Despite this anomaly, embracing effectuation principles can help in overcoming the environmental challenges that make growth undesirable. High optimism in a dynamic environment can slide into overconfidence which is negatively related to performance (Hmieleski & Baron, 2008b; Moores & Chang, 2009). Showing caution in such an environment by applying effectual principles such as affordable loss and acknowledging the unexpected can be the key to successful navigation of terrain like this.

7.9 Chapter summary

The empirical findings in this study provide a new understanding of the interplay of emotion (e.g. passion) and cognition (e.g. motivation) in entrepreneurial decision-making. The findings contribute to the literature by emphasising the importance of emotion and effectual logic in the entrepreneurial decision-making process. The results show that effectuation boost venture performance and entrepreneurs who are passionate about developing venture will pursue growth. This finding further highlights that entrepreneurs' actions are not only bound by rationality but are also emotional. Looking particularly at entrepreneurial motivation factors such as entrepreneurial self-efficacy and opportunities which are rooted in cognition, entrepreneurs tend to develop less interest in growth based on these factors. Armed with the knowledge of the environment, entrepreneurs in this context are less willing to grow their ventures. However, entrepreneurs' growth intention emanated more from their feelings than from cognition as was previously claimed. These feelings are attached to activities salient to the role identities of the entrepreneurs (inventing, founding and developing). Still, regardless of what role identity they cherished, application of effectual principles encourage growth intention.

The insights gained from this study may be of assistance to inform educational programs and training that focus on entrepreneurial efforts which could enhance entrepreneurs' understanding of their identities that emanate from entrepreneurial passion thereby increasing entrepreneurial effectiveness by nurturing these identities (Kasouf et al., 2015). Furthermore, these educational programs and training should be design with activities that stir entrepreneurs' emotion and not just knowledge. Obviously, entrepreneurs need more than knowledge to embrace and navigate growth path in challenging terrain and entrepreneurial passion with the application of effectual logic proves to be the key.

Chapter Eight: Implications, Contributions and Limitations

8.1 Chapter outline

This chapter serves as a concluding chapter of the study. This study set out to examine the interplay of emotion and cognition in the formation of growth intention as well as the mediating role of effectuation in these relationships. Both quantitative and qualitative data were analysed, and the findings were discussed in the preceding chapter. These findings have implications, therefore, the implications, contributions and the limitations of the study were presented in this chapter.

8. 2 Theoretical, Practical and Policy implications

The current research has implications for future study, managerial practice and public policy. The evidence from this study suggests that entrepreneurial passion and effectual logic play a pivotal role in the formation of growth intention of small and medium enterprises in Australia and New Zealand. Further, entrepreneurs show sensitivity to the dynamism of the environment, such that the presence of opportunities is negatively associated with growth intention. These findings from the present study have several implications.

8.2.1 Theoretical Implications

Intention-based model was applied in this study to explain the predictors of growth intention among SMEs in Australia and New Zealand. This intention-based model was modified with the inclusion of entrepreneurial passion as scholars have long advocated the examination of the role of cognition and emotion in such a model (Simon, 1967). This new model offers an in-depth understanding of the causal relationships of predictors of growth intention of SMEs in the context of this study. Based on the results of the hypothesised model, the findings suggest that the formation of growth intention relied more on feelings than on cognitive variables as entrepreneurial opportunities and self-efficacy reveals negative association with growth intention. However, entrepreneurial self-efficacy and growth intention relationship is not significant.

Further, prior empirical work has suggested that the driver of entrepreneurial behaviour may be factors other than cognition (Murnieks et al., 2014). The finding of this study confirmed the important role of entrepreneurial passion but examining both entrepreneurial passion and motivation in the same model is one of the contributions of this study. As entrepreneurship scholars have paid much attention to cognition, it is high time entrepreneurial emotion is given sufficient attention knowing that passionate entrepreneurs can overcome the challenges of dynamic environments.

Empirical research on predictors of venture performance such as entrepreneurial passion and motivation has sought to explain these relationships with many other constructs, but the role played by effectual logic is conspicuously lacking (Murnieks et al., 2019; Newman et al., 2020). Effectuation illuminates some of the discoveries emerging from this study, partially and fully mediating these relationships. With the potency of effectual logic, the results of this study suggest that the appropriate application of these principles will enhance venture performance in challenging contexts. Smolka et al. (2018) noted that effectual principles improve venture performance, particularly flexibility and pre-commitment. Entrepreneurs that depend on their means, practice affordable loss principle, and are flexible, can overcome some of the challenges associated with growth such as resources constraints, size of the market and regulations. These findings have significant theoretical implications for the understanding of how growth intention is formed in a challenging environment. Whether the intention to grow is linked with their passion or motivation, effectual logic occupies a pivotal role in the process.

8.2.2 Practical Implications

Findings from the current study provide significant benefits not only for entrepreneurship researchers but also for entrepreneurs and owner-managers of small and medium enterprises in Australia and New Zealand. These results suggest several practical implications for entrepreneurs who intend to grow their ventures. If the intense positive feelings associated with activities that are salient to role identity of a developer has been linked with growth intention directly and indirectly, then how can these feelings be awakened in them?

Scholars have previously concluded that it is impossible to activate entrepreneurial passion through entrepreneurship education and training (Cardon et al., 2009). However, recent

evidence suggests otherwise as Gielnik et al. (2017) found that entrepreneurship training boosts passion and entrepreneurial self-efficacy such that the positive effects on passion are maintained through entrepreneurial self-efficacy (Kasouf et al., 2015) and sustaining high passion after training eventually leads to business creation. Therefore, entrepreneurship education and training should target stirring the emotion of entrepreneurs by including activities that can arouse intense positive feelings linked to different role identities.

As evident from the findings of this study, despite their competencies and abilities both to create and to sense opportunities, many entrepreneurs appear to be growth avoidant in the context of this study. Several studies highlighted the potency of effectuation to improve venture performance in a challenging context (Engel et al., 2014, 2017; George et al., 2016; Laine & Galkina, 2017).

Environmental dynamism causes volatility in the financial and capital market, affecting entrepreneur's ability to secure funding for their intended growth. Hence, they have to embrace their means as an alternative source of funding. For example, there might be people in their network that are willing to co-create value with them, contributing to the needed resources and sharing the risk. This volatility results in uncertainty and SMEs are never guaranteed better performance based on their intended growth. In case of failure, business owners should only risk what they can afford to lose as this will leave them with the resource to try other ideas later. If they encountered failure, they should be flexible enough to embrace different methods or ideas. Therefore, if entrepreneurs are going to drive growth in this dynamic environment, they must leverage effectuation principles. They have to be means-driven, focus on affordable loss and be flexible to overcome risk and uncertainty peculiar to their situation.

8.2.1 Policy Implications

There are several implications to be drawn for the government and policymakers from the conclusions of this study. The relationship between entrepreneurial motivation and growth intention is negative though ESE-intention path is not significant, yet the causes are linked mainly to environmental factors. Policymakers should be at the forefront, making sufficient efforts to allay some of the challenges identified as inhibiting growth by the entrepreneurs.

Some of the factors highlighted are regulatory and policy related, which are necessary as a check for ethical and sustainable business practices. However, it is imperative that entrepreneurs are consulted and allowed to be part of drafting these regulations and policy.

Effectual logic emphasised partnership with stakeholders to eliminate or reduce uncertainty. Solving sustainability problems in business is complicated because often business owners put profit before the planet, and any attempt to change the order is met with outright resistance. A partnership between policymakers and business owners can bring about commitment from both sides towards achieving sustainable business practices.

Getting entrepreneurs involved bring a sense of responsibility, and policymakers can use this medium to awake their consciousness about their roles and responsibilities to society. This is important as most entrepreneurs make the pursuit of the profit their ultimate aim thereby neglecting society and the environment. If they understand the merit of these regulations and policies, they will no longer see them as burdensome, and be more than willing to comply and be sustainable in their business practices.

8.3 Contributions

This study makes contributions methodologically, empirically and theoretically. Specifically, in conducting this study, a convergent parallel mixed method design was chosen in which both quantitative and qualitative data were collected concurrently (Creswell, 2013). The quantitative phase dealt with the major part of the research while the qualitative phase was used to support the quantitative one. The main aim of this design is to support and where necessary, confirm the findings from the first part. For the quantitative part, cross-sectional data from SMEs' sample were collected through a survey, and the qualitative part obtained data through open-ended questions from the survey as well. Thirteen hypotheses were tested with the data supporting eleven and the other two rejected. Analysing the qualitative data led to the development of category and themes that confirmed most of the findings from the quantitative phase of this study.

This study supports the hypotheses that elements of entrepreneurial passion and motivation are significantly associated with growth intention. Specifically, entrepreneurial

passion for developing is positively and significantly related to growth intention, whereas, on the motivational level, entrepreneurial opportunities are negatively and significantly related to growth intention. In a recent systematic review of literature on both entrepreneurial passion and motivation (Murnieks et al., 2019; Newman et al., 2020), considering passion and motivation with various entrepreneurial outcome variables as well as their mediating variables, none of the studies reviewed examined the mediating role of effectuation. This is the first empirical study in entrepreneurship that shows the indirect effects of entrepreneurial passion and motivation on growth intention through the mediating mechanisms of effectuation. Although entrepreneurial passion for founding and entrepreneurial self-efficacy shows no significant direct effects in the context of this study, the indirect effects through effectuation were confirmed.

Another significant contribution of this study is the inclusion of both emotional and cognitive elements in the same model for a proper understanding of the predictors of entrepreneurial outcomes. “Since in actual human behaviour motive and emotion are major influences on the course of cognitive behaviour, a general theory of thinking and problem solving must incorporate such influences” (Simon, 1967, p. 29). The results from this study reveal that often, decisions are emotional and not just rational. Or better said this way: emotion is stronger than knowledge. Entrepreneurs are less willing to grow, taking into consideration the motivational factors in this dynamic environment. However, they are willing to grow their ventures based on their feelings. Thus, theoretically, passion is also a predictor of intention and should be considered as one of the antecedents of intention in TPB.

8.4 Limitations of the Study and Suggestions for Future Research

Similar to other studies, this current research is not without limitation. First, survey data collected in a single time are prone to common method variance bias. We accounted for potential bias through statistical control procedures, and the specific bias construct was retained for subsequent causal analyses. Future studies could eliminate or reduce this through the use of longitudinal data.

The second limitation is the validity of effectuation scale, which was below the recommended cut-off values for average variance extracted (AVE) in the CFA analyses. Our

results for effectuation which is seen as a formative, multidimensional construct (Chandler et al., 2011) show that dropping a sub-dimension could produce better construct validity than using the full scale of items, however, that may compromise the face validity as well. Another source of weakness in this study which could have affected the measurements of constructs was dropping of certain items which cross-loaded strongly with other factors or indicators. This might compromise the internal validity of these measures.

Third, the sample for this study comprises of only willing participants, hence, the generalisability of these results is subject to such limitation. While the participants are solely from Australia and New Zealand, the economies of both countries have similarities with many western economies. Notwithstanding, the model tested in this study can be replicated in other countries outside Australasia. The findings from this study lead to a reconsideration of the generalisability of theory in entrepreneurship research. For instance, some of the results show an exception that motivational factors such as entrepreneurial opportunities and self-efficacy lead to the development of growth intention. Indeed, this is good for theory development in entrepreneurship scholars are highlighting the importance of context.

Some of the limitations of this study present opportunities for future researchers to address these shortcomings as they strive to advance the frontier of knowledge in the field of entrepreneurship. Future research undertaken in this context could seek to sample participants randomly and make an effort towards achieving a sample that is a true representative of the population.

The aim of measuring effectuation in this study was to capture the decision-making thinking of respondents, however, the scales used reflected more of behavioural acting approaches, and this is challenging to handle in a survey. Future study can overcome this mismatch by using a method such as an experiment which easily captures decision-making thinking because survey has been faulted in dealing with such underlying subtleties (McKelvie et al., 2019).

Delineating the overlapping and complexity of these predictors is another way future research can advance knowledge in entrepreneurship research. As mentioned by scholars, entrepreneurs' passion could be for more than one role identity (Cardon et al., 2009). This

could partially be responsible for heavy cross-loading of items among inventor, founder and developer measures. For entrepreneurial motivation construct such as need for achievement and entrepreneurial self-efficacy which are also related in our sample. Measuring more succinctly these overlapping and complex phenomena with a clear delineation within a particular dimension will result in overcoming multicollinearity issues. Fostering the understanding of overlapping and complex nature of these predictors will definitely enrich understanding of growth intention and entrepreneurship theory.

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Appendix A: Survey Instrument

Date_____

Dear Sir/Madam

My name is Abayomi Akinboye, a PhD candidate at the University of Canterbury.

I would like to invite you to participate in a major study on New Zealand's small and medium business growth intention by filling out the attached survey. The purpose of this study is to examine factors that influence entrepreneurial growth intentions and to better understand the role of entrepreneurial cognitive logics and entrepreneurial ecosystem in the formation of these entrepreneurial growth intentions. The study is part of my doctoral thesis.

As a respondent, you can be assured of anonymity. Neither your name nor that of your firm will be identified or published. The data you provide will be kept ***strictly confidential*** and will not be disclosed to anyone other than myself and my supervisors. My thesis will only report aggregate statistical trends throughout the entire sample, and the use of the data will strictly be for academic purposes.

While it is very important for us to learn your opinions, your participation in this project is completely voluntary and you can withdraw at any stage of the study. Should you have any concerns or questions about the study, please do not hesitate to contact me or my supervisors.

Sincerely,

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Code _____ (For researcher use only)

Age _____ **Gender _____**

Position:
□ Founder □ Owner-manager
□ Manager □ Other (Please specify) _____

Academic Qualification:
□ Secondary Education
□ University or College Degree
□ Postgraduate Degree
□ Other (Please specify) _____

Industry (Your firm's main line of business**) _____**
Experience as an entrepreneur (Number of years)_____
Number of Employees _____ **Year Founded _____**
Region:

□ Northland □ Auckland □ Waikato
□ Bay of Plenty □ Gisborne □ Hawke's Bay
□ Taranaki □ Manawatu-Wanganui □ Wellington
□ Tasman □ Nelson □ Marlborough
□ West Coast □ Canterbury □ Otago
□ Southland

1. Which best describes your preference for the future size of this business:

□ I want the business to be as large as possible

□ I want a size I can manage myself or with a few key employees

2. Please indicate the likelihood of your firm engaging in the following activities within the next three years

GROWTH INTENTION	**Extremely unlikely**	**Unlikely**	**Neutral**	**Likely**	**Extremely likely**
Technological Improvement					
Acquiring New Equipment					
Computerizing Current Operations					
Upgrading Computer Systems					
Replacing Present Equipment					

Expanding Current Facilities					
Adding Specialized Employees					
Resource Aggregation					
Expanding Advertising and Promotion					
Offsite Training for Employees					
Seeking Additional Financing					
Seeking Professional Advice					
Researching New Markets					
Market Expansion					
Adding a New Product or Service					
Selling to a New Market					
Adding Operating Space					
Expanding Distribution Channels					

3. Please indicate how much you agree with each of the following statements

ENTREPRENEURIAL PASSION	**Strongly disagree**	**Disagree**	**Neutral**	**Agree**	**Strongly agree**
Passion for inventing					
It is exciting to figure out new ways to solve unmet market needs that can be commercialized.					
Searching for new ideas for products/services to offer is enjoyable to me.					
I am motivated to figure out how to make existing products/services better.					
Scanning the environment for new opportunities really excites me.					
Inventing new solutions to problems is an important part of who I am.					

Passion for founding					
Establishing a new company excites me.					
Owning my own company energizes me.					
Nurturing a new business through its emerging success is enjoyable.					
Being the founder of a business is an important part of who I am.					
Passion for developing					
I really like finding the right people to market my product/service to.					
Assembling the right people to work for my business is exciting.					
Pushing my employees and myself to make our company better motivates me.					
Nurturing and growing companies is an important part of who I am.					

4. Please indicate from the rating scale below how accurately each statement describes you.

ENTREPRENEURIAL MOTIVATION	**Strongly disagree**	**Disagree**	**Neutral**	**Agree**	**Strongly agree**
Need for Achievement					
I have always wanted to succeed and to accomplish something in my lifetime.					
I find it hard to understand people who always keep on striving for new goals although they have already achieved all success they could possibly have imagined.					

To face new challenges and to manage to handle them is important to me.					
I am so satisfied with what I have attained in my life that I think that now I can confine myself to keeping what I already have.					

5. Please indicate how much each of this statement describe you when solving a problem

ENTREPRENEURIAL OPPORTUNITY	**Strongly disagree**	**Disagree**	**Neutral**	**Agree**	**Strongly agree**
Opportunity discovery					
I discovered the solution to the problem.					
The solution already existed and I only found it.					
I realized there was a solution.					
I found a solution to the problem.					
Opportunity creation					
I created a solution for the problem.					
I made a solution for the problem.					
I developed an answer to the problem.					
The solution did not exist, I have been creating it.					

6. Please rate yourself against your peers on the following

ENTREPRENEURIAL SELF-EFFICACY	**Much worse**	**A little worse**	**About the same**	**A little better**	**Much better**
Being able to solve problems.					

Managing money.					
Being creative.					
Getting people to agree with you.					
Being a leader.					

7. Please indicate how much you agree with each of the following statements

COGNITIVE LOGICS	**Strongly disagree**	**Disagree**	**Neutral**	**Agree**	**Strongly agree**
Causation					
My business venture was specified on the basis of given business targets					
The target of my business was clearly defined in the beginning					
Given business targets have been the starting point					
Required means/resources have been determined on the basis of given business targets					
A concisely given business target has been the starting point for our business					
The business specification was predominantly based on given targets					
Given business targets have significantly impacted on the framework of my business venture					
Considerations about potential returns were decisive for the selection of business option					
Business budgets were approved based on calculations of expected returns (e.g., ROI)					

The selection of the business option was mostly based on analyses of future returns					
I mainly considered the potential odds of the business					
Decisions on capital expenditures were primarily based on potential returns					
I tried to identify risks of the business through thorough market and competitor analyses					
I have taken decisions on the basis of systematic market analyses					
My focus was rather on the early identification of risks through market analyses in order to be able to adopt my approach					
In order to identify risks, I focused on market analyses and forecasts					
I only integrated surprising results and findings when the original business target was at risk					
Business process focused on reaching the business target without any delay					
The business planning was basically carried out at the beginning of the business					
I first of all took care of reaching our initially defined business targets without delays					
I have always paid attention to reach the initial project target					
By the use of upfront market analyses I tried to avoid setbacks or external threats					

Effectuation					
I experimented with different products and/or business models.					
The product/service that I now provide is essentially the same as originally conceptualized.					
The product/service that I now provide is substantially different than we first imagined.					
I tried a number of different approaches until we found a business model that worked.					
I was careful not to commit more resources than I could afford to lose.					
I was careful not to risk more money than I was willing to lose with my initial idea.					
I was careful not to risk so much money that the company would be in real trouble financially if things didn't work out.					
I allowed the business to evolve as opportunities emerged.					
I adapted what I was doing to the resources I had.					
I was flexible and took advantage of opportunities as they arose.					
I avoided courses of action that restricted our flexibility and adaptability.					
I used a substantial number of agreements with customers, suppliers and other organizations and people to reduce the amount of uncertainty.					

I used pre-commitments from customers and suppliers as often as possible.					
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I avoided courses of action that restricted our flexibility and adaptability.					
I used a substantial number of agreements with customers, suppliers					

and other organizations and people to reduce the amount of uncertainty.					
I used pre-commitments from customers and suppliers as often as possible.					

1. What are the factors that could motivate you to grow your business into a large company?

2. If you are passionate about turning your business into a large company, what could you say is fuelling your passion?